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The Journal of Higher Education JUNE, 1936 II

The College President Calls It a Year

By MARTHA T. BOARDMAN

A Review of College Reports

THIS paper attempts to set forth typical points of view relative to outstanding phases of educational procedure discussed with some frequency by college presidents in their annual reports. To mingle in their company has been a thrilling experience. One feels a breath of romance, coupled with the steady pulse throb of a great adventure, for the college president works with youth, with his eye always to the future, for ends that though often defying precise definition are constructive and timeless. Judging from these reports, contrary to popular belief, the most striking thing about the American college president is his awareness of this changing modern world, with its enormously complex and difficult problems; its magnificent opportunities; its ever expanding horizons; its staggering challenge to men of intellectual and moral power, men of invincible good will. The presidents are men of conscience, courage, and determination. When orderly processes of law and government are endangered, they speak out, as witness their unanimous opposition to "teachers' oath bills," and in specific instance, the courageous championship of the New Jersey courts by the men of Princeton.

The literature found in the reports of a single year is so extensive as to make the task of the reviewer both interesting and perplexing. Every conceivable phase of administration is covered from informal picnics of the Outing Club to qualifications of a college chaplain, from the hourly wage of the *FERA* copyist to the investment portfolio of $10,000,000. From the wealth of material it was necessary to choose. It was decided

that reports reviewed should be only those of institutions on the approved list of or holding membership in the Association of American Universities, and that no summary should be attempted, but a simple exposition of a few significant and vital phases.

The reports of 65 institutions, 13 for women, 17 for men, 35 coeducational, met the standards adopted and were included in this study:

Albion
Allegheny
Amherst
Baker
Barnard
Bates
Berea
Birmingham-Southern
Boston
Bowdoin
Catholic University of America
Cincinnati
Coe
Colorado College
Columbia (New York)
Connecticut
Cornell (Iowa)
Denison
Duke
Earlham
Franklin and Marshall
Hamilton
Harvard
Hendrix
Hiram
Johns Hopkins
Knox
Lafayette
Lawrence
MacMurray
Marietta
Massachusetts Institute of Technology
Michigan
Mills
Mt. Holyoke
New Jersey College for Women
New York University
North Carolina
Notre Dame
Oberlin
Occidental
Otterbein
Princeton
Radcliffe
Richmond
Rochester
Rutgers
College of St. Catherine
St. Lawrence
Skidmore
Smith
Southwestern (Tenn.)
Stanford
Swarthmore
Syracuse
Trinity (Conn.)
Vassar
Wellesley
Wells
Wesleyan
Western Reserve
Whittier
Williams
Wittenberg
Yale

It is believed they represent a true sampling of American higher education, ranging from Wells College of simple organization and an enrollment of 269 students, to Columbia University, with its myriad schools and departments, enrolling 14,116 students on full time.

If the president's term in office, as a rule, is short, the 65 presidents here reporting are a picked group of more than average experience. Their combined administrative service to the institutions they now serve is 801 years; many of them were deans and professors prior to their elevation to the presidency.[1] One previously served as president of another college for 16 years, and one presided over two other institutions for an aggregate of 14 years. Thirty-nine of these presidents have served in their present positions ten years or longer; 26, fifteen years or more; 11, twenty years or over; the longest term of office is 40 years; the five shortest, one year. The average length of term is 12.5 years; the median, 14 years.

As the spirit of man is manifested through a body, so the president's report, a creation of the mind, is also the product of a machine. A word therefore on its outward appearance is appropriate. Of the reports under scrutiny, 52 are printed; 13, mimeographed or typed. They are as varied in general make-up, size, shape, color, and type, as they are diverse in content. They range all the way from Occidental's petite four-page, bevelled-edge folder (3⅛ inches by

[1]President Butler is not included; Dean Hawkes, of Columbia, and Dean Gildersleeve, of Barnard, were the executives for their respective units of Columbia University.

6 inches), printed in red and black, comprising all told but 400 words—truly *multum in parvo*—to the ponderous tome of its fellow Californian, Stanford, which tops the list with the astonishing total of 533 pages, standard size (6 inches by 9 inches). Happily, the format is attractive, the paper and type of the best. Generally speaking, small colleges have small reports; large, complex institutions, large reports; but this does not always hold. Western Reserve with 3,186 students, issues a thin book of 130 pages, in which are included an historical statement about the University, the names of trustees, the report of the president, the report of the treasurer, the reports of deans of 12 schools, the reports of the director of libraries, the director of student health service, and the director of Cleveland College. One president's report is printed as a part of a voluminous church document; two are illustrated—Berea and Columbia. The majority of the reports look interesting. It is desirable, surely, that they attract the eye; rarely, one is repelled by too fine print or paper that is none too good.

In announcing Harvard's 300th anniversary fund, President Conant said, "If we are to plan for the future, we must plan in terms of men." It is with those phases of administration most closely allied to flesh and blood that this paper is particularly concerned. Though important also, the curriculum, admissions, general examinations, and like matters, and development of the college plant are excluded. Those whose interest lies primarily in these fields will find up-to-date and discriminating discussion elsewhere.[2]

THE outstanding impression left by a survey of these reports is that college education has changed greatly during the past two years. No longer can it be truthfully said that "there is a clearly discernible lag on the part of our higher educational institutions in adjusting themselves to changing social and economic conditions." The adjustment is not complete, and it may not be under way in every institution, but we have abundant evidence that it is actively in process in many of them. No student of Mr. Thorndike's course in educational psychology will ever forget his insistence that education is life, not merely a preparation for life. The view prevails more generally in college education today than ever before, that education is life, here and now, life abundant, life enriched by countless new discoveries, the rapid development of new materials, products, and processes of engineering and invention, and by the social sciences. The job of the college is not only to instruct, but to discover, to conserve, and to refine.

Once college and culture were thought synonymous. What is culture? President Compton has defined it as "the sympathetic understanding and appreciation of life." Is there a better definition? That is college education in a nutshell. In these reports the college program is variously stated, as it should be, by the

[2]For discussion of the curriculum, *see* "Curriculum Trends, Bifurcation and Unification," by Robert L. Kelly, *Bulletin of the Association of American Colleges*, XXI (December, 1935), pp. 542–51.

college executives, but it boils down to that. It is interesting to note how many state definite aims. President Wriston, of Lawrence College, says: "The great achievement of the faculty during the last ten years is the establishment of a perfectly clear objective and a program designed to realize that objective. The significance of the college course as a genuine experience of an intellectual, social, aesthetic and emotional kind has been made the keynote of the whole program."

Cincinnati, Coe, Denison, Haverford, Hiram, Lafayette, Oberlin, Rochester, and many others make their purpose plain. They believe with Dean Hawkes that "the 'whole man' is admitted to college and that the institution has a responsibility for his education in body, in character and on the social side." Their plans are shaped accordingly. There is, of course, careful scrutiny of the curriculum, important additions and subtractions, reorganization to place more responsibility upon the student; there is also emphasis on health and happiness, gracious living, and appreciation of the finer things of life; there is a stubborn attempt to discover and develop native capacities, to guide the choice of a vocation, to open the way for exercise of ability or talent, and to encourage continuous self-improvement as a life process. Already the "alumni college" has appeared with its contribution to this end on 54 college campuses. Most presidents agree with President Comstock when she says: "We are concerned, and rightly concerned, with finding ways of giving Radcliffe wider and better publicity; but nothing covered by that term could compare in effectiveness with the constant testimony of our graduates that they found here an atmosphere and a setting evoking the development of their finest tastes and greatest powers."

MANAGEMENT of the financial affairs of a college, the primary obligation of its trustees, is mentioned here because the results are of utmost consequence to both teachers and students. There is an upward trend—though unevenly distributed—in financial status. No attempt is made to set forth the situation in detail, since illuminating and comprehensive data have been assembled by the United States Office of Education in its circular entitled *The Economic Outlook in Higher Education for 1935-36;* furthermore, conditions change rapidly from day to day, and data gathered a year ago would be for present purposes, unless supplemented by more recent studies, hopelessly behind the times. It is sufficient to note that there were unmistakable signs of a turn of the tide last year, due to improved business conditions generally, increased income from student fees, and generous gifts from alumni and friends. Like all eleemosynary institutions, colleges feel the comeback last and upward progress is slow; income from endowments continues low, fluctuates, falls, or stops altogether, with slight prospect of early improvement, and is a source of constant anxiety. One college reports nearly a million dollars from which no income was received

last year. Another states that the value of bonds and stocks has held up remarkably well—the market value of its endowment holdings being not less than the total number of dollars contributed during the years for this purpose. "The yield of all invested funds was 5.08 per cent." Another president writes:

> It is worthy of note that throughout the devastating depression, we have not only carried on all departments of the university without incurring indebtedness, but every year have increased both total resources and endowment. The increases this year are the smallest of the period.

But salaries in the same institution were cut 10 per cent, and only one-half of this cut had been restored when the report was written. The president of Swarthmore eloquently voices the case for the colleges:

> These endowment funds exist for the benefit of the younger generation. . . . Any action which affects the stability of the American dollar affects their value directly and injures by just so much the interests of future generations of youth for whose benefit they have been gathered together. . . . We have the same vital interest as all endowed philanthropic funds and institutions, all the salaried and wage-earning classes, all owners of life insurance policies and savings banks deposits, in the maintenance of the integrity of the American currency.

The president of Coe states

> the stake our colleges and universities have in securities appears from the fact that throughout the country 73 per cent of their investments is in stocks and bonds, 14 per cent in mortgages, and 13 per cent in real estate.

In addition to the dangers of inflation, there is the ever recurring anxiety concerning taxation. The president of Wesleyan makes the interesting suggestion that our colleges, as British institutions do, should volunteer to the communities in which they are located contributions toward such public services as police and fire protection.

College budgets were balanced, or if they were not, the loss was made up by an appeal for special gifts; sometimes too, by drastic measures of economy.

The whole question of student aid is coming to the fore. Some institutions report the requests for aid fewer than in 1934; others, that the number aided is the largest in the history of the college. A few institutions like Hamilton and Harvard have felt it best to decline government funds for their students, but the overwhelming majority of presidents commend the *FERA* grants as of the greatest value.[3] They have made it possible for many students to attend college who otherwise would have been unable to do so, and have been of inestimable help to others. One president reports 106 girls receiving aid.

From the point of view of the students, the greatest benefit was the certainty of employment (in lieu of temporary, changing jobs). It enabled them to fit the definite hours of work into their college programs without too great interference with academic or social life.

[3]There is some difference of opinion on the extent of their value. One report says "serious problems have been raised. I am forced to the opinion that not all of the results will be beneficial." Another remarks that the work of planning and supervision has been so heavy as seriously to overburden the staff.

They knew exactly how much they could expect to earn. They were enthusiastic about the whole program and expressed great appreciation for the instructive end of the work. . . . Students have benefited immeasurably by the close contact they have had with the realities of the working world.

From Hiram College comes word that "the *FERA* work has been of educational advantage. Many students have learned needed lessons in punctuality, dependableness, and faithful performance. Our Dean reports that the academic grades of those holding campus jobs were significantly higher than those of students who carried no work."

Most of the *FERA* money goes back to the colleges in tuition, but it has been helpful to them in other ways as well. The librarian of a college of over two thousand students says:

> It is impossible to express adequately appreciation for the assistance given by the students whose employment was made possible by the *FERA* funds. For the first time we found it possible to undertake many services which the small size of the regular staff had not permitted.

The president of another Ohio college says the *FERA* experiment has inspired the faculty to a better system of student aid:

> We hope the new regulations will broaden the spirit of responsibility and self-respect in the college. Incidentally, they will probably eliminate a number of those who in spite of the care exercised received scholarships for tuition which they should have paid.

Forward-looking presidents realize present Federal grants are an emergency measure and that when they cease serious problems will arise. They are asking the appointment now of committees to study the situation and formulate a long-range program. Many colleges have dipped deep into regular endowment income to help students, which cannot be permanently continued.

THE belief, "It Can't Happen Here," is prevalent, but what has happened here during the past two years is startling. Chancellor Chase, of New York University, in an impassioned plea for fair dealing says:

> For the first time in the history of American education, so far as I know, a major university on a private foundation has undergone a legislative investigation on the charge that it was disseminating subversive propaganda. There are, I believe, some twenty-six states in which bills requiring that teachers or students or both take an oath of allegiance to the national Constitution and to that of their states are either in force or have been introduced before legislative bodies.

Such attempted regimentation of academic procedure is recognized as a menace to the spirit of the university and is by no means ignored by the presidents. Indeed, it is one of the matters most frequently discussed. Presidents of institutions little and big, Boston University, Coe, Columbia, Denison, Lawrence, Princeton, Rutgers, Swarthmore, Wesleyan, and many more, join Mr. Chase in defense of academic freedom.

> Any university worthy the name will fight for its intellectual freedom against all assaults. It must do so or lose its self-respect. . . . That principle we must

maintain and with this attitude there must be no compromise. Its maintenance, on the other hand, imposes on members of university faculties the obligation to be clear about the responsibilities which the right to freedom imposes. . . . Propaganda is to be met by the insistence, within the realm of inquiry, on the university's eternal business with the truth; as it is to be met within the realm of behavior by dignity, good taste, and the decent restraints of the scholarly life.

Well is it said that

freedom of thought, freedom of inquiry, and freedom of teaching lie at the very basis of any sound education. . . . It is the freedom not to do just what anybody pleases that we prize and must forever insist upon, but . . . freedom . . . along with loyalty and not at all along with recklessness.

President McConaughy, of Wesleyan University, chairman of the Commission on Academic Freedom and Tenure of the Association of American Colleges, says:

College teachers never had a greater obligation than today to think carefully and fearlessly and to express themselves upon matters in which they can justly be considered authorities. Most of the difficulty about academic freedom comes from the ill-advised statements of teachers in fields where they have no greater competency than the layman.

TREMENDOUSLY important changes are being introduced in the college program, entrance requirements are modified, more elasticity is being permitted in planning the individual student's work (President Conant reports that over six hundred of the present freshman class were given individually careful and detailed advice—before they entered college); regulations governing distribution and concentration are subject to constant review; but nothing done by the colleges is more important than efforts to improve teaching by improving the teacher. The presidents realize that economic security and opportunity for growth are vital to their faculties. They stress as matters of simple justice the need of restoring salary cuts, advancing salaries of the efficient, providing sabbatic leaves, and encouraging research. One puts it squarely in these words:

Conditions essential to the maintenance of an excellent teaching staff are reasonable security of tenure, adequate compensation and opportunity for promotion. The major obstacle to the improvement of teaching at——is the lack of resources necessary to provide adequate compensation for teachers in the lower ranks and for the ablest of the maturer professors. The present maximum salaries will need to be raised if the college is to avoid being unjust to its most effective teachers.

At Oberlin the first cautious steps toward resumption of normal conditions noted are the lightening of salary reductions, a few modest increases—the first for three years, and the granting of a number of leaves of absence for 1935–36. The tuition fee was advanced from $225 to $250, effective in September, 1935, to help meet these adjustments. The faculty at Wells filed with the president a most earnest plea for opportunity to study and travel, which was passed to the trustees with cordial executive endorsement.

At Amherst, fellowships are reported

as the contribution of a recent alumnus for the benefit of younger members of the faculty, an endowment which is believed to be unique among the colleges, and the benefits of which three professors now abroad are enjoying. President Blunt, of Connecticut College, reports the college budget carries an item for research and study—awarded in 1934 to eight older members for research in their respective fields of interest, and to ten younger members for summer study or a trip to New Haven or New York for work toward advanced degrees. At the College of St. Catherine an interdepartmental conference, meeting weekly, in which the faculty examine their own teaching, present to one another proposed changes in procedure, evaluate the change in terms of student advantage, and report any gains by which the whole group may profit, has proved highly successful.

PRESIDENT JESSUP, of the Carnegie Foundation, has suggested that the most important question to ask about a college or university is what happens to a student who is enrolled in it. The students in the colleges under consideration are giving a good account of themselves. They are worthy of confidence.

At Wesleyan, the president is made happy by "the steady progress of students and faculty." Scholarship averages have been higher; the record of Freshmen for the first semester is the highest yet recorded. The library is increasing its usefulness every year; the circulation set a new record—60,884 volumes as against 59,969 in 1934. In new accessions the librarian says the record for the past three years is approximately sixteen shelves filled with new books every week!

At Mount Holyoke it is said that

> students of 1935 are much more closely in touch with life outside the campus than were their predecessors of ten or even five years ago [eight college club affiliations with intercollegiate organizations are named]. . . . One also finds in student life today an increased seriousness of point of view, a sense of responsibility to the community, and a growing interest in a spiritual approach to life, though not necessarily along the lines of established religion.

Everywhere there is an unselfish trend to larger outlook. Courses in preparation for better citizenship and public service are being greatly extended. Dean Gildersleeve, of Barnard, says: "A great change in public affairs is reflected in the marked increase in the proportion of our alumnae in some form of government service—between two and three times what it was in 1930. This probably prophesies a permanent tendency." Institutes of politics and regional conferences on national and international affairs are held on small college campuses in all parts of the country—Bowdoin, Connecticut, Grinnell, Earlham, MacMurray are typical, as well as the University of Virginia, Williams, Princeton, and Southern California. The School of Public Affairs at Harvard will be the rendezvous later on, no doubt, of many whose interest in the field was awakened in undergraduate days in the West.

But time would fail me to tell

of the many, many evidences of student development. It is clear that the colleges are becoming centers of real intellectual activity, that the effect of the depression has been to make the entire college—officers, faculties, students—more serious, diligent, and purposeful. There is more co-operation between administrative officers and teachers, between departments. It is discovered that certain desirable ends can be achieved by all groups working together, that no one can accomplish working alone. A simple incident related by one of the presidents stands out as illustrative of this:

When I came here sixteen years ago, having something of a horror of a Village Improvement Society at beautiful lawns strewn with papers, I suggested getting some containers to place here and there about the campus. One of the trustees told me it would be money wasted, for the students would use them as footballs. But the containers purchased sixteen years ago are still every one of them in use. The students as well as some of us who are older love a beautiful campus.

Mr. Kullman, of Geneva, reports impressions of a recent visit to the United States:

I confess that although I had heard of the great changes in American thought brought about by the crash of prosperity, I could not help going to the States with the old images of my visit eight years ago in mind. I soon discovered a new world. Self-complacency has given way to a passionate search for truth. . . . Whatever the New Deal has or has not been able to achieve, it has certainly made American youth think hard about unemployment, social security legislation, the rôle of the state in the shaping of the economic structure of the country. And no type of political isolationism can prevent the young from feeling that our problems in Europe are identical with their problems and that there is no way to solve the part without the whole.

There is nowhere in the world so much study, and so much optimistic study, of international relations, as in American universities.[4]

President Keppel, of the Carnegie Corporation, in his annual report a year ago expressed convictions on higher education that have been widely noted and proved exceedingly provocative among the colleges. In his report for 1934–35 he says:

Whatever the reason or combination of reasons, there can be no question that a leaven is working in the American college, . . . and discriminating individual donors and foundations alike have today opportunity to make useful contributions, modest in amount as compared with the spectacular gifts of former years, but of equal or perhaps greater significance.

Finally, let a college president speak:

There can be no life without growth, and there can be no growth without change. No vital institution, no worth while institution of democratic society can be kept static without being destroyed. Technological invention makes for change. If we would avoid revolution, we must not allow social invention to lag too far behind technological invention.

The American college is an effective instrument of "social invention"; it is training the best kind of citizenship for the future.

[4] *International Student Service*, (March, 1936). pp. 8–9.

General Education and Specialization

By J. ANTHONY HUMPHREYS

A Study Based upon Students' Choices of Courses under the Chicago College Plan

ONE of the most fundamental aspects of the educational philosophy involved in the adoption of the new plan for the College of the University of Chicago was the prolongation and expansion of general education. In this College it was intended that the student should secure broader orientation to the principal fields of knowledge. Attention to specialization was to occupy a distinctly minor position.

Therefore the curriculum under the new plan became at once the most important problem. All other aspects depended on the type of course of study established. Major decisions had to be made concerning the constituent elements of the survey courses, the range of prescribed courses, the kinds of elective courses, and the extent to which students would be permitted to elect their work without restrictions. The content of the required courses became the definition of general education for the College of the University of Chicago.

Anyone who is familiar with the administration of academic institutions knows that it is one thing to establish a curriculum on paper and that it is another task to carry the plan into effect. Therefore the question arises very naturally in reference to the new-plan curriculum in the College of the University of Chicago: Is the goal of general education being realized? Do students' programs show a wide distribution of attention over fields of knowledge? Does specialization occupy a distinctly minor position? One attempt at an answer to these questions was made by the writer in an intensive study of certain aspects of the academic life of students under the old plan and the new plan at the University of Chicago. Discussion in the present article is based on it.

Although it might be said that one of the major aims of the junior college under the old plan had been "to supplement and round out the general education begun in high school,"[1] yet this aim materialized in practice in ways very different from the outcomes of the curriculum under the new plan. Under the old plan the content of general education was by no means the same for all students. Under that plan general

[1] *The University Handbook, July, 1930.* p. 10.

education was constructed for each individual student by adding in each of the four fields of knowledge—the biological sciences, the humanities, the physical sciences, the social sciences—enough courses, taken in the junior college, to those already taken in high school to total four majors (two units).

Under the new plan, however, the content of general education was defined more exactly for all students. There was provided for each student a common core of educational experience, namely, educational attainment as shown by five comprehensive examinations—in English and the four fields of knowledge. In addition to this core of minimum essentials the student was required to pass two elective examinations in any two divisional or departmental fields. Thus a small beginning in specialization was made possible along with a well-defined body of general education.

To serve as basis for study of the operation of the curriculum in actual practice, as well as basis for investigation of other problems, detailed data were secured from the academic records of 450 students from three different entering classes, the autumns of 1927, 1928, 1929, under the old plan; and 300 students from two different entering classes, the autumns of 1931 and of 1932, under the new plan. The representative character of these samples was proved in the original study by use of the Chi-Square test.

In any discussion of general education on the college level it is interesting, and sometimes illuminating, to look back at the distribution of courses taken by college students while in secondary schools. To what extent, one may ask, did the student gain an introduction to all the principal fields of knowledge?

IN THE present discussion one may inquire, Did the students who entered under the new plan offer a materially different pattern of distribution of high-school courses from that offered by old-plan students? Since requirements for admission to the new-plan college are practically the same as they were under the old plan, and since there has been no unusual change during recent years in secondary-school curriculums that prepare for college, one would not expect marked changes in the pattern of units accepted for entrance to the freshman class. This expectation is borne out by the data. In no one of the four fields of knowledge has the average of units accepted for entrance changed to a marked degree. These are the data:

	Old Plan	New Plan
Biological science	.7	.7
Humanities	6.8	6.9
Physical sciences	4.2	4.4
Social sciences	2.8	2.8

The high-school program of academic subjects continues to be made up primarily of the humanities and the physical sciences. The social sciences have a relatively small place, and the biological sciences are given practically no attention. The high-school pattern for new-plan students does not differ in any significant fashion from that of old-plan students.

Although one cannot in the true

sense of the term refer to major and minor sequences in high school and junior college, yet one may attempt an approach to an analysis of the continuity or lack of continuity of major attention to subject-matter on the various levels. This question becomes important because of its bearing on the extent of specialization. If the junior-college student emphasizes a certain department, that is, devotes more time to courses in that department than to any other department, and if that department corresponds to the one in high school where major emphasis was laid, and if the student selects his major work for the senior college in the same department, then one may say that continuity of specialization is definite and continuous. If, in reference to this problem of continuity, the general picture for students under old-plan conditions is different from that for students under new-plan conditions, the data become significant.

Based on various approaches to this problem, conclusion was reached that new-plan students to a more noticeable degree than old-plan students have tended to shift major attention from department to department, or from one field of knowledge to another, as they have moved from one educational level to another. Such a tendency is consistent with the newer aim of postponing specialization until after the period of general education, the end of the College. The very lack of continuity is indeed a condition on which favorable comment can be made, for it shows that the new-plan students in the College of the University of Chicago are not being forced early into specialization. Their entire period of training up to the Divisions reveals flexibility and varied academic interests.

WE TURN next to consideration of the actual changes which have taken place in students' programs of study under the new plan. Do the programs of study of these students show a wider distribution over fields of knowledge than was the case under the old plan? Or has there been no material change?

A simple statistical study of courses registered for during two years of residence by the 450 old-plan students and by the 150 students in the first sampling of the new plan makes it clear that noticeable changes in students' programs have occurred. Without any doubt the requirements under the new plan have brought about a more nearly equal distribution of courses over the four fields of knowledge than was true under old-plan conditions.

Increased attention to courses in the biological sciences is particularly marked. Under the old plan 9.9 per cent of the courses registered for in the College by the sample populations were in the biological sciences. In the first new-plan group the corresponding percentage was 18.3. This large increase was due primarily to the new, required, introductory general course in the biological sciences.

In the field of the social sciences has occurred the other most apparent shift in emphasis. Of all the courses taken in the junior-college years 35.6 per cent under old-plan conditions were classifiable with the social sci-

ences. Under new-plan conditions the similar figure is 25.8 per cent.

Little change in emphasis has taken place in the humanities and physical sciences. For the humanities under the old plan the incidence of attention was 34.7 per cent, while under the new plan it was 35.3 per cent. For the physical sciences there was also a small increase in emphasis, 19.8 per cent for old-plan students and 20.6 per cent for new-plan students.

Since the proportion of attention given to courses in the humanities and the physical sciences by students under the new plan is about the same as that given by students under the old plan, it can be said that the better distribution of attention has developed because of greater emphasis on the biological sciences at the expense of the social sciences.

The wisdom of this definite shift in emphasis from the social sciences might be questioned by some proponents of the social sciences. They would argue that preparation for modern life requires increasing attention to this field. However, when one reflects upon the relatively slight degree of stress placed upon the biological sciences, about 10 per cent, in the programs of old-plan students—a field that has increasingly become more important for life today and adjustment to modern conditions—one would probably agree that the new emphasis is most desirable.

Another result of the new plan has been markedly decreasing emphasis on the taking of departmental courses. Because of the required introductory general courses one would anticipate such a situation. Practically without exception each department under the new plan is being given a relatively smaller proportion of attention, by students in the College, among all the courses taken in the same field of knowledge. The greater degree of attention is claimed by the new introductory courses.

THE problem of extent of specialization under the new plan may be looked at in two ways: first, from the point of view of major emphasis or specialization on the junior-college level, that is, in the College; second, from the point of view of the proposed department of concentration on the senior-college level, that is, the Divisions.

By definition in this study, specialization may be said to be taking place in that department, hereafter the "major department," in which the student registers for the largest number of courses in the College, exclusive of work in the introductory general courses and English composition. The students from the first group that entered under the new plan on the average devoted a noticeably smaller proportion of all their courses to courses in their "major department," that is, to specialization, than did the old-plan students. The percentages of decrease found in the biological sciences was 45 per cent; in the social sciences, 40 per cent; in the humanities, 36 per cent; and in the physical sciences, 31 per cent.

If one takes into consideration also courses within the same general field of knowledge as one's major department, one is impressed again with the fact that programs of study of new-

plan students show less attention to specialization. This is true for all fields of knowledge except in the biological sciences. For that field, under the new plan, a tendency is apparent toward an increase in the amount of attention to courses taken within the major division but outside the student's major department. Perhaps an effort is being made to broaden for the "majoring" student the range of subject-matter contacts within the biological sciences.

Another way of expressing the same idea is to say that except for the biological sciences a noticeable decrease is evident under new-plan conditions in the proportion of attention given to courses in the division or field of knowledge in which the student is specializing. For the groups of students studied the percentage of decrease is as follows from old plan to new plan: the physical sciences, 32 per cent; the social sciences, 29 per cent; the humanities, 22 per cent; the biological sciences, 3 per cent.

Students under the new plan are allocating on the whole a distinctly larger part of their programs of study to courses in the three fields of knowledge other than the field in which the major sequence happens to fall. In other words, general education is being realized in the taking of courses that represent a much broader area of knowledge than was true under the old plan.

The study of the problem of the varying proportion of attention given to so-called general education and specialization may be approached from another angle. Instead of assuming that the student's major sequence on the junior-college level is that department of subject-matter in which he has taken the largest number of courses in the College, exclusive of work in the introductory general courses and English composition, the department chosen by the student for his major sequence in the Divisions, the senior-college level, may be assumed to have been the student's major department when he was in the College. Although the percentages showing distribution of emphases under this new assumption are somewhat different from those given in the foregoing paragraphs, the general conclusions are the same. Less attention is being given to specialization.

The data outlined in the foregoing discussion indicate that the new plan at the University of Chicago did do certain things to the programs of the first group of new-plan students in the College. The constituent elements in their programs were more widely distributed over the four fields of knowledge. Each field was represented in more desirable proportion than was the case under the old plan. Next, there is proof that more of the student's time under the new plan has been given over to general education than was the practice under the old plan. The new-plan student has been taking a smaller proportion of his courses in his so-called major department. Students have been allocating noticeably larger sections of their programs to fields of knowledge other than the one to which their specialization belongs. Attention to general education in the College has been growing, while emphasis on specialization has been decreasing.

The Bachelor's Degree

By PHILIP L. HARRIMAN

Historical Summary of Degree-Granting in the American College

THE degree of Bachelor of Arts has a continuous history of seven centuries. Many contemporary practices in conferring the title are strongly reminiscent of medieval procedures. At Paris the beginnings of the degree may be followed more satisfactorily than in any other medieval university, thanks to the monumental work of Crevier—*Histoire de l'Université de Paris*, in seven volumes. An account of the origin of the bachelorship in the medieval guilds would lead into a digression far remote from the purpose here. Briefly, the university bachelorship in the arts faculty indicated that the student had become an apprentice teacher, privileged to gain experience in pedagogics by giving "extraordinary" lectures. His real university degree, to be earned by three years of further work, was the licentiateship. Following the reception of this title, he was ceremoniously inducted into a faculty and assumed the mastership or doctorate. By 1275 the licentiateship examinations had become formalized into the *déterminance*, "the first form of the bachelorship of arts."

The vocational implications of the medieval bachelorship have been entirely disregarded by college faculties in America. During the long struggle to put science into the curriculum, the conservators of academic traditionalism emphasized the non-worldly and purely cultural significance of the degree. The attitude that the *primum gradum in artibus* should be wholly non-vocational has also historical justification. The practices from which it has been derived, however, date at least two centuries later than those which established the degree.

At fifteenth-century Oxford the Bachelor of Arts degree took four years of study, and then most students ended their academic careers. Those desiring the right to teach, *ius ubi docendi*, remained in the arts faculty for three more years. The student might use his bachelorship as propaedeutic for admission into one of the higher faculties of law, medicine, or theology. If he had taken his Master of Arts degree, he would spend four additional years qualifying for the Bachelor of Civil Law, otherwise six years would be demanded. There is likelihood that the faculties of law in some medieval universities, such as Montpellier and Toulouse, had developed their own system of degrees, from the bachelorship to the doctorate. At Oxford the arts degrees were regarded as the certificate of the teacher or as

evidence of fitness for the advanced studies. The Master of Arts might earn the first degree in medicine in four years, whereas others had to spend about seven years. In theology the Masters of Arts were expected to study for seven years longer before being allowed to hold "extraordinary" lectures on Lombard's *Sentences*. As the training furnished by the arts faculty became established as preparatory for higher studies, the older view of the Bachelor of Arts degree as a professional certificate in itself was obscured. Hence the arts degree gradually lost its original character and became either a sign of fitness for advanced studies or a final degree for those wishing a general education.

THE formula used by the youthful Henry Dunster in giving nine young men the first degrees in a New World college alluded to the traditions which had grown up at Paris and been developed at Oxford and Cambridge. As each man stepped up, on September 23, 1642, President Dunster said:

> Admitto te ad primum gradum in Artibus, scilicet, ad Respondendum Quaestioni pro more Academiarum in Anglia.
>
> Tibique trado hunc librum una cum potestate publice praelegendi (in aliqua Artium quam profiteris) quotiescumque ad hoc munus evocatus fueris.[1]

No doubt, the sixty or seventy Cambridge men, as well as the Oxonians, living in the Bay Colony had seen to it that the propositions were adequately disputed. The allusion to "replying to the question" refers to the medieval practices in the *déterminance*, when the student displayed his fitness to participate in the teaching. At Harvard this Solemn Act was observed in the early afternoon, before the awarding of the degrees, and the "young men of good hope" evidenced their brilliance in Latin arguments. Then they were admitted to the degree, presented with a book as a symbol, and given the right to lecture publicly whenever they should be called to that office. This is a plain reference to the traditional significance of the degree in arts as a teaching certificate. Nevertheless, only one of the young men taught for any extended time.[2]

From 1642 until 1851 no other degree than the Bachelor of Arts was given in a recognized liberal-arts college in America. Traditionally, and in fact, the *primum gradum in artibus* was the badge of an educated man, and there was no multiplication of witnesses. When church and state were separated it lost whatever legal status it once had, and was henceforth evaluated by reference to the institution which had conferred it. In the middle of the nineteenth century the traditional program of studies leading to the degree was called into question by the rise of science. The arts faculty bitterly resented the attempts to add scientific studies to the time-honored curriculum emphasizing Latin and Greek. At Yale and at Harvard such studies were given in special schools, the Sheffield and the Lawrence scientific schools. Both these schools were recognized as decidedly inferior in

[1]Morison, S. E. *The Founding of Harvard College*. Cambridge, Massachusetts: Harvard University Press, 1935. p. 261.

[2]Morison, *op. cit.*, pp. 261–62.

the quality of their work. Neither one offered a full course of study lasting four years, and neither was equipped with the facilities for adequate instruction in laboratories. In short, they were mere annexes to the established arts colleges.

In spite of the almost overshadowing eminence of these men who taught in the Scientific School, the degree of Bachelor of Science did not command the esteem to which it might have been entitled. The Scientific School pursued the policy of attracting students by making entrance and graduation easy. Its product was manifestly crude in quality. The College looked down upon it with reason. . . . In other colleges it was different only by being inferior, because their students lacked even the opportunity to gaze admiringly at such famous scientists as were to be seen at New Haven and Cambridge.[3]

Louis Agassiz has been called the father of the Bachelor of Science degree, though it was first conferred in 1851 upon the four graduates of the Yale Sheffield Scientific School. As late as 1898 it was still held in low esteem, for President Eliot's Report for 1897–98 mentions his plan for raising entrance and degree requirements in the Lawrence Scientific School. President David Starr Jordan remarked that the B.S. really meant "Bachelor of Surfaces." The scientific course, he said, was scientific in that its proponents could not think of anything else to term it. In 1897, President Jacob Gould Schurman denounced the degree as an unfair rival of the Bachelor of Arts.[4]

[3]James, Henry. *Charles William Eliot.* Boston, Massachusetts: Houghton Mifflin Company, 1930. Vol. I, pp 210–11.

[4]Symposium conducted by W. S. Sutton, *School Review,* VIII (February, 1900), pp. 92–123.

For several hundred years the standardized degree in the arts had been the *baccalaureus artium;* hence it is not surprising to read of the tremendous resentment aroused by the innovators in American colleges. True, the pressure of the new studies was great, but students in curriculums other than the classics had to rest content with inferior laurels. Time had given the baccalaureate degree a well-understood connotation, and the way to win the distinction was through study of the ancient languages.[5] Any other course was held to be, of necessity, "soft pedagogy" crowned by "any new and splendid degree which they may ask, but do not let them have (as they wish to have) the old degree which carries a credit in their case undeserved and false."[6]

AS THE scientific course became increasingly rigorous and the B.S. gained in academic respectability, a new curriculum was established to meet the needs of a large group of students. For these young men both the traditional course in the classics and the newer scientific curriculum were too exacting. Brown, therefore, set up a new degree known as the Bachelor of Philosophy. Like the "pass" degrees of the British universities, it appealed to those wishing a college education without mental exertion; and President Wayland frankly invited such students to enroll at Brown. Instituted in 1850, the requirements set by President Wayland remained substantially the

[5]Eliot, C. W. *Latin and the A.B. Degree.* New York: General Education Board, 1917.

[6]A letter from one conservative Harvard overseer to another (*see* James, *op. cit.,* Vol. II, pp. 82–83).

same, until in 1873 they were stiffened. At the turn of the century the course requirements for this degree were as exacting as for the A.B. or the B.S. The Ph.B. met a felt need in the American college as a way out of a dilemma. The A.B. course was too remote from the interests of many students, and the B.S. program was a half-hearted compromise with the demands of a changing society. In 1872, for example, only thirty Ph.B.'s were granted; but in 1892 five hundred ninety-four took the degree, and by 1908 it ranked third in popularity to the A.B. and the B.S. Brown, by the way, announced that the degree had been discontinued for students entering in September, 1934, and after.

The procedure at Rochester may be cited to illustrate the introduction of the Ph.B. In the Recommendations to the Board of Trustees, September, 1850, the faculty provided for the establishment of two four-year courses. The one would require Latin and Greek, and it would carry the A.B. As a concession to the new scientific courses there would be a program leading to the B.S. In 1890 Rochester adopted the Brown precedent and established a "philosophical course" crowned by the Ph.B., a degree which Rochester discontinued in 1910.

DURING the latter part of the nineteenth century the American college faculties struggled hard to defend the purity of the A.B. After some decades the B.S. attained nearly equivalent status, but the Ph.B. never did. When the defenders of traditionalism were forced to recognize the place of other new studies in the college curriculum, they set up special degrees. At first, however, a more sensible plan was given consideration, and then rejected. The proposed solution was known as the "free elective system" and was introduced at Harvard College by President Eliot. F. A. P. Barnard and Francis Wayland had long been advocating a liberalized college curriculum. Many of the other leaders in higher education had likewise expressed their dissatisfaction with established curriculums which did not meet the needs of life and which disregarded individual differences among students. These views President Eliot brought together in a statement expressing his philosophy of education:

> The natural bent and peculiar quality of every boy's mind should be sacredly regarded in his education; the division of mental labor, which is essential in civilized communities in order that knowledge may grow and society improve, demands this regard to the peculiar constitution of each mind, as much as does the happiness of the individual most nearly concerned.[7]

If he had been entirely successful in bringing the Harvard group to accept this philosophy, the other higher educational institutions of this country would have followed suit. The results of their efforts to actualize such an idea might have tremendously improved the quality of college work and have afforded contemporary educators a sound basis upon which to plan. It would doubtless have led to the abandonment of all other degrees than the A.B. as meaningless

[7] James, *op. cit.*, Vol. I, p. 169.

innovations ungrounded in genuine reflection upon the place of collegiate education in a democracy. The fact is, however, that President Eliot failed to gain acceptance for this philosophy, and to this day it remains an unrealized ideal.

THE line between the A.B. course and all other curriculums was drawn taut. A second procedure, therefore, was developed to meet the demand for education to fit directly for the needs of life. Under this plan the faculties drew up differentiated programs of study, to be elected *in toto* and to lead to specialized degrees. For example, about forty years ago the following baccalaureate degrees were conferred in this country: A.B., B.S., Ph.B., V.L., B.C.E., B.M.E., B.E.E., B.E., B.Arch., B. Agri., B.Mus., B.Ped., B.O., B.F.A., B.L.S., B.Paint.[8] Later on the bachelorship might be obtained in other specialized fields as well. In higher institutions for the preparation of teachers, by a piece of Hogarthian caricature, the A.B. might not be given, though originally that was the teachers' degree. Such institutions might give the B.Ped. or, later, the B.Ed. The B.S., representing in the minds of American educators no consistently thought-out philosophy, might be qualified by phrases indicative of specialized curriculums. Hence a teacher-training institution might award the B.S. in education; a school of business could give the B.S. in business; and so *ad infinitum*. In short, there developed two tendencies. First, a college might set up a vocational curriculum and establish a new bachelorship, such as Bachelor of Letters. Second, the B.S. might be used as a dumping ground for curriculums vaguely thought not to be quite respectable from the standpoint of academic tradition; then a differentiating phrase was often appended, like B.S. in physical education.

Thirty-five years ago these practices were recognized to be a reflection upon our philosophy of higher education: . . . "it is only a question of time when the absurd and arbitrary distinctions between professional and non-professional studies in their relation to culture will be abolished."[9] Yet so potent is tradition that the multiplication of degrees continues right down to the present time. Whenever the average college faculty deliberates upon the establishment of new courses of study, they consider the wisdom of protecting the value of historic degrees by setting up new ones for the added curriculums. Such a custom developed since 1850 and gained a momentum which brings it down to this day. There is, however, some evidence of the development of a more rational attitude toward degrees. To illustrate, the following Associated Press note appeared:

> The faculty of Alfred University has voted to discontinue the Bachelor of Science degree in the College of Liberal Arts, subject to the approval of the trustees. This action conforms to a wide movement among universities to standardize degrees.[10]

[8] United States Bureau of Education. *Report of the Commissioner of Education, 1897–98.* Washington, D. C.: Government Printing Office, 1899. p. 1828.

[9] Thomas, D. Y. "The Simplifying of College Degrees," *The Dial*, XXXI (July, 1901), p. 11.

[10] *Herald Tribune* for November 24, 1935.

This is but a step removed from completely giving up the futile debate over culture versus practical education. Rightly conceived, any group of subjects worthy to be included in the college curriculum has cultural value. The aristocratic ideal of culture has no place in a democracy. Even the most "practical courses" must be taught in such a way as to give social insights. We shall not have attained our ideal of a democratic philosophy at work in higher education until we are ready to give one degree, the A.B., to all students upon their completion of a college course, no matter whether they took the classics or not or whether they pursued courses formerly known as "cultural" or "practical."

The leaders in American higher education are beginning to face the situation directly and to point out how practices in awarding degrees reflect on consistent philosophy. Although a degree is merely an external affair, the by-product of a stage in progress toward an education, yet the multiplicity of bachelorships awarded by American colleges signifies a need for developing a sounder theory for higher education. Colleges are permitted by the guardians of traditional education to offer subjects of a vocational nature and to include studies contributing to worthy use of leisure time. Nevertheless, additions to the curriculum which meet the needs of a changing civilization are bitterly opposed; and when at length admitted, lead to a degree which at first is confessedly inferior. Now that contemporary leaders in the American college are rediscovering the ideals of Wayland, Barnard, and Eliot, the tendency is to abolish distinctions among bachelors' degrees and to award the A.B. for undergraduate work successfully completed.

THE history of degrees for women in America gives an even clearer illustration of our lack of any real philosophy of higher education. Catherine E. Beecher, to be sure, did not approve of degrees for women. Degrees, she believed, would cause women needless ridicule and painful notoriety; in fact, cynics might regard degrees as "an attempt to unsex them." Owing to the great need for cheap teachers, she advocated that every female seminary establish a normal department. Envious of their brothers' college degrees, the young women a century ago insisted that they too have a chance to possess college degrees. The seminaries, therefore, in order to please the girls offered such degrees as M.P.L., Mistress of Polite Literature; M.F.A., Mistress of Fine Arts; and M.E.L., Mistress of English Literature. For graduates of a three-year teacher-training course the degree of L.I., Licentiate of Instruction, was awarded. A.S. and M.A., given by some female seminaries, meant respectively Sister of Arts and Maid of Arts. Although Miss Beecher's warning was not strictly heeded, yet educators were thoroughly impressed with the danger of placing too great a strain upon the delicate minds of females. Hence, the girls could, to be sure, win degrees; but the curriculums were softened and the degrees attenuated.

Margaret Fuller was disgusted with

the current philosophy of higher education of women which was reflected in such degrees. Women, she said, were being defrauded by the seminaries; they were covering a great deal of ground in their studies, without actually being taught anything. The following doggerel voiced the chagrin of intelligent women:

> Is it fear? is it envy? or what can it be?
> And why should a woman not get a degree?[11]

The first degrees carrying academic prestige were given to women at the Elmira Female College in 1859. As women proved that their minds would stand up under the strain of the curriculums offered to men, the same system of degrees was opened to them as was available for men. Owing to a traditional belief that higher education would wreck women physically and that women were incapable of mastering advanced studies, women students demanded a chance to prove themselves in the curriculums offered in men's colleges. Of course, they have succeeded admirably. Arguments against granting standard academic degrees to women "are now only slumbering memories in the social mind of a busy world and come to the surface only in some sequestered nooks, still undisturbed by events of fourscore years."[12]

The multiplicity of titles given to graduates of female seminaries and colleges fifty years ago reflected not only the inferior status of women, but also the chaotic notions underlying advanced education. Now the one undergraduate degree, whether for men or women, whether for liberal or vocational studies, should be the time-honored *primum gradum in artibus*, the A.B. For six centuries it was conceived as the undergraduate degree; it should be so considered today.

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[11]Quoted from *Littell's Living Age*, 1869, by Thomas Woody, *A History of Women's Education in the United States*. Lancaster, Pennsylvania: Science Press, 1929. Vol. I, p. 114.

[12]Woody, *op. cit.*, p. 56.

Divisional Courses

By ELLIS FREEMAN

Two Types of Divisional Courses in the Natural Sciences

THREE years ago the College of Liberal Arts at the University of Louisville underwent a revision of the curriculum which, while representing a response to some tendencies already active in higher education, involved also a great deal of experimental pioneering. Our experimentation, even at this early stage, authorizes certain practical conclusions which may be serviceable to others, particularly in the field of the natural sciences.

The revision of the curriculum committed us to a qualitative distinction between courses in the junior college and courses in the senior college; this distinction is reflected in the differentiation between the two divisional courses in the natural sciences to be discussed.

The function of the junior college is conceived to be essentially to give a broad orientation in major fields of knowledge. The instruction as a whole is planned to provide a basic liberal education, in the sense of offering a responsible conception of the universe, and of narrowing the intellectual gulf between what popularly passes for knowledge and the legitimate conceptions provided by scholars, artists, and scientists. Its purpose is to provide general but authentic conceptions in essential fields. To attain this end, general survey courses in three broad fields are required of all students: in the natural sciences, which shall describe the world of inanimate and animate nature, man's own body and mind being included; in the humanities, which shall deal with man's cultural values and accomplishments; and in the social sciences, which shall treat of the improvisations for group living by means of which man has attempted to secure these values. In this scheme it is the function of the junior-college course in the natural sciences to provide an account of the essential phenomena of the universe within which cultural values and social institutions arise and by which they are largely conditioned.

In contrast to this more sketchy exploration of three broad fields, the function of instruction on the senior-college level has been to develop proficiency by concentration in one specialty and co-ordination with related lines. To this end a more restricted region of science is intensively exploited as a major subject, much after the conventional manner of departmental concentration. A specialized, and, where possible, professional superstructure on the founda-

tion of the broad liberal training of the junior college is thus constructed. But in addition, for purposes of co-ordination, a not inconsiderable aim is to insure that before graduation the major in any one natural science will understand its history, development, and interrelations with the other sciences—in brief to break down compartmentalization as far as possible and to co-ordinate closely related disciplines in the sciences. For this latter purpose of co-ordination is provided a course for the senior year called History and Philosophy of Science.

THE required course in the junior college is called Survey of Natural Sciences. In the first semester the work is introduced by four lectures on the philosophy of science and the inductive method. Immediately an attempt is made to offer a view of science from the inside as to an initiate and to overcome the vulgar notion held of it as magic. In such a simple matter as demonstrating that a good definition is a refined conclusion to scientific endeavor and not a starting point, notwithstanding the common practice of reversing the order in textbooks for the sake of pedagogical convenience, a great many inadvertent false views can be dispelled. Another instance found beneficial is in a thorough treatment of the nature of a scientific law as a mere condensed and abstract statement of a phenomenon common to numerous observed cases, a statement representing nothing which has any independent existence, a statement which merely asserts that if *A occurs, B will occur.* It is well for the student to understand the character of the powerful instrument of inductive law-making as a means to any kind of orderly work in the academic disciplines, but more as an important cultural phenomenon of the world.

Thence, the course continues with the biological sciences, with some treatment of psychology toward the end of the semester. Except for the introductory four lectures on the philosophy of science and the inductive method, the first semester is, accordingly, devoted to the biological sciences. The second semester is devoted to the physical sciences, and includes physics; chemistry, inorganic, organic, and physiological; astronomy; structural geology; and meteorology.

The policy governing the entire course rests upon several basic considerations. First, it is designed for non-science majors, and an effort is made to provide a responsible, though elementary, account of biological and physical phenomena as part of a liberal training for students to whom this will presumably be their principal, if not their only, contact with science. The plan is to simplify the material and to present sound generalizations, sketches, and general principles. Details are considered important but secondary to general principles, and are treated only as far as time allows. For instance, we consider it enough, for purposes of this course, in dealing with mechanical advantage, to treat levers only and to ignore wheels and pulleys. The constant concern of the course is to avoid distortion and false impressions which might have to be corrected were the student to go further in science later on. In any

one topic of such a course two procedures are possible: first, a restricted portion of the topic could be treated in intensive detail; second, a more extensive area of the topic could be covered sketchily and in less detail in order to give a comprehensive view of the field as a whole. We have used the second procedure and have had no reason to change to the first.

The course consists of three lectures weekly throughout the year by specialists in biology, physics, chemistry, and similar subjects, with a recitation-quiz meeting bi-weekly, for which the class is broken up into sections of twenty. All quizzes and examinations are objective. A basic syllabus is used, one for each semester, written by the lecturers. Extensive supplementary reading in formal textbooks in special fields is required. Lectures are accompanied by frequent demonstrations and the use of eighteen moving-picture films on special topics. There is no laboratory work. Aside from course examinations, the student must pass a general objective examination in the year's work for promotion to the senior college. For this promotion, only the passing of the general examination is obligatory, not enrollment in the course. Most students do, however, register for the entire course, although a small number take but one semester, or audit certain lectures to fill in a hiatus if they feel otherwise qualified by science courses taken in the past.

THE divisional course in science, History and Philosophy of Science, in the senior year rests upon a different policy. In the first place, it is designed primarily for science majors and presupposes extensive competence in the sciences. In this course, running the entire year, the aim is to give the history of each broad field, biology, astronomy, physics, mathematics, psychology, and the interrelations of these. The philosophy and logic of science, from primitive practices on, are stressed in order to present the orderly and consecutive development of the basic conceptions which have influenced all the special sciences. No hesitation is felt in reaching over into political and social history and religion in order to present the cultural matrix in which these conceptions have arisen, been facilitated, or thwarted. Unlike the survey course in the junior college, this senior-college course does not teach the sciences themselves, but rather attempts to characterize, evaluate, and relate them.

The work is presented in two lectures weekly throughout the year by specialists, who attend each other's lectures, engage in class discussion, and hold staff meetings in order to co-ordinate viewpoints and material. Extensive reading in the history, philosophy, and logic of science is required of students. A long critical paper on reading on a special topic is required each semester. Frequent objective and essay quizzes and examinations are given. In addition to course examinations, all science majors are required to pass a general essay examination on this material for graduation from the senior college.

In connection with the survey course in the junior college it is relatively easy and simple to assign

instructors who can acquit themselves satisfactorily. Physicists, chemists, and other scientists already on the faculty can be used. It is only necessary for the divisional chairman or co-ordinator to have them submit outlines of lectures and syllabus material which can be trimmed, adjusted, and co-ordinated.

Caution is necessary to eliminate the extensive overlapping of related fields like physics and chemistry in particular. Left to themselves, both the physicist and chemist will redundantly discuss force, energy, mass, Brownian movement, capillary attraction, osmosis, surface tension, and similar topics. It is, of course, the duty of the co-ordinator to eliminate these redundancies, as well as to develop a policy and a general plan through conferences with all participants after preliminary proposals have been submitted and at frequent intervals during the year. A further caution is necessary: the co-ordinator must curb a disproportionate presentation of any one special topic. Every faculty may carry one or more ill-balanced, or indolent individuals who will overemphasize a topic either because of excessive preoccupation with it or too great indolence to develop new material. Accordingly, unless the co-ordinator exercises vigilance, he may find that the biologist spends nearly all of his time lecturing on genetics and race deterioration, or the physiological chemist on vitamins and diets. This will happen because time is limited and selection necessary, so that, left uncurbed, some men may simply present a particular interest only.

The ease with which instructors can be secured for this survey course arises from the circumstance that no novel burdens are placed upon them, and no special skills beyond their own fields are required. They can be taken from the men already available on the faculty. It is only necessary to trim and co-ordinate their subject-matter.

But in the senior college great difficulty is encountered with the course in the History and Philosophy of Science. The reason for this is not far to seek. It is necessary to have specialists who can walk with ease and mastery, each in his own field, because to make the required generalizations and abstractions one must have a command over the extremely technical details. But where the difficulty arises is that these specialists in the sciences, possessing technical details well enough, are, on the whole, however, entirely untrained and naïve in the philosophical and logical fundamentals which underlie their sciences, and which are requisite to competent generalization and abstraction. The ordinary run of biological and physical scientists are incredibly innocent of philosophy in general and epistemology in particular. This is markedly demonstrated even among the most distinguished like Eddington, Jeans, and Millikan who, the moment they become speculative, preside as metaphysical midwives at the rebirth of hoary philosophical absurdities.

The college instructor in the biological and physical sciences, in general, never succeeds in getting philosophically beyond a state of naïve realism

and feels no call to go beyond the crude data of his senses. A further difficulty lies in the fact that Ph.D.'s in these fields are not generally required to be acquainted with the history and development and interrelationships of their special disciplines. But worst of all is the professed abhorrence which these men manifest for philosophy which they like to dispose of as mere verbal trifling. They fail to realize, moreover, that at every step they are inadvertently employing a philosophy, an epistemology, although, because they are uninformed, it is a bad and inadequate philosophy.

In this course there are two key men. One is the mathematical physicist, who should be competent to deal with the most recent advances in radiation and atomic structure, without a correct general view of which no major in science should be graduated. Incidentally, a comprehension by the students of the rôle of statistics in these matters should be insisted upon.

The other is the co-ordinator of the course, who should be at once well trained in both philosophy and science. This individual it is difficult to find. A practical solution for any institution which seeks to establish such a senior course and wishes to use already available men, is to seek its co-ordinator among its psychologists. The psychologist will be most likely to have greater catholicity of training in philosophy and the sciences. The reason for this inheres in the present status of psychology. First, as its independence is very recent, it still retains a close relationship to philosophy with which most psychologists are passably conversant. Furthermore, as its claims to scientific status have not gone uncontested, every psychologist has been obliged to examine the philosophical basis of all science in order to determine that of psychology. Accordingly, psychology has produced speculative thinkers on the philosophy of science, men like Wundt, Mach, Avenarius, Brentano, Titchener, and Köhler, whose counterparts it would be difficult to discover in other scientific disciplines. And a still further reason is that the psychologist is also likely to be trained in the closely related biological and physical sciences, and therefore to have some insight into their fundamental interrelationships.

Needed Appraisal

By T. ERNEST NEWLAND

Objective Evaluation of New Types of Curricular Reorganization in Colleges and Universities

ORGANIZED education has undergone changes the desirability of which has been decided upon in one of at least three ways. In most instances a change has been made in educational procedure or program on an *a priori* basis; in some instances the changes have been made upon conclusions reached by means of carefully controlled experimentation; and in too few cases these changes have been effected in light of the results of carefully planned and executed experiments, sound logic, and a social philosophy of education. While such a condition has prevailed all along the educational ladder, the ways in which specific modifications have been made at various points on this ladder have varied with the particular situations at these points. For instance, the way in which a particular aspect of a philosophy of education is to be interpreted varies with the educational level in connection with which it is being considered. The amount of agreement on outcomes decreases as one ascends the educational ladder and would result, therefore, in greater differences of opinion as to the relative merits of one type of change as contrasted with another. The college and university level has consistently been the most backward or hesitant to countenance changes that have been claimed to be beneficial. This has been true not only with respect to the curriculum and methods of teaching, but also with respect to the forms and functions of administration.

Even though higher education heretofore has been the stronghold against new movements and innovations, there seems to be current a movement to meet demands for modifications. In light of the amount and kind of literature pertaining to this trend, one is tempted to consider that college or university which does not have a "plan" or an "experiment" as being definitely not "in the swim." We seem almost to have reached a point where a college must have not only a "plan" but also a slogan that either characterizes the modification quite concisely and charmingly or is pleasingly ambiguous, but nevertheless quite impressive. Note, for instance, the slogan, "A book in the woods is worth two in the library," and the statement that the Siwash curriculum like the Siwash program is "dynamic and developmental." McHale found that up to February, 1932, some fourteen hundred changes

and "experiments" were current among some three hundred colleges, although she considered less than 10 per cent (128) of them outstanding enough to promise to improve higher education.[1]

Indeed, as one reads the literature on "new plans," one is impressed more by the enthusiasm for such modifications than by any evidence of an attempt to determine in any objective manner the particular merits of any given "experiment." As Wooster says, "numerous experiments are being tried, but the whole body of experimentation bears an uncomfortable similarity to rule-of-thumb methods long ago abandoned by careful scientists."[2] Dean Hawkes, in the review of a book on this general subject a year or so ago, added a note of humor and perhaps a bit of sarcasm to the situation when he said: "In reading such descriptions [of the results of changes in liberal-arts education] one is inevitably reminded of the remark as recorded at the end of the sixth day of creation to the effect that 'the Lord saw everything that He had made and behold it was very good.' "

There have been both reasons and rationalizations for this unfortunate state of affairs. Unquestionably it is true that certain of the desired outcomes of most of these changes do not lend themselves well to our present means of measurement in the sense of possible immediate or future results. It is also unquestionably true that certain curricular modifications have been made either on the basis of such vaguely stated claims that one is baffled in an attempt to determine just what behavior changes might be expected, or on the basis of statements to the effect that the ends to be attained do not admit of measurement. When statements of the first type are made, those especially interested in research can react only as to a challenge; when statements of the latter type are made, those interested in the objective study of such a problem can only regret that those executing (or perpetrating) the changes in higher education have failed to analyze their particular problem into the specific behavior modifications that are desired. Illustrative of this second type of unfortunate attitude is the case of the college president who pointed out that "the object sought is self-education, the development of the faculties of each individual to the utmost by his own conscious effort," in which process "the act of acquisition has as much value as the content acquired."

WHILE much of this can be applied to most of the educational tinkering that has taken place under the misnomer of experimentation, the scope of this paper will be confined only to those major curricular modifications that have been or are being made. No attempt has been made to consider changes that have been made only in special schools of law, medicine, education, engineering, graduate study, or the like. No particular consideration has been given to attempts to facilitate

[1] McHale, Kathryn. "The Present Status of College Experiments," *Bulletin of the Association of American Colleges*, XIX (March, 1933), p. 133.

[2] Wooster, Harvey A. "To Unify the Liberal-Arts Curriculum," JOURNAL OF HIGHER EDUCATION, III (October, 1932), pp. 373–80.

the academic adjustment of small, highly selected, superior groups as were begun at Northwestern and later at Temple. Nor has special consideration been given to changes in entrance requirements or changes in methods of instruction unless these adjustments represented the essential or major characteristics of a new curricular arrangement.

In looking through current educational periodicals, as contrasted with locally published reports or bulletins, for the last three to five years for evidences of the attempts at evaluation of these major changes in higher education, a total of twenty-four instances was found. This does not mean that attempts at objective evaluation were made in that many different schools. In fact, these statements were made by or pertaining to only twelve different institutions. Four statements were about Chicago and Colgate; three each were about Harvard and Southwestern; two each about Buffalo and Wells; and one each about Antioch, Hiram, Massachusetts Institute of Technology, New York University, Swarthmore, and the Wisconsin Experimental College.

When the nature of these evaluations is analyzed on the basis of objectivity, one is interested in finding that seven were made by means of on-campus or just-graduating student opinion obtained by means of some form of questionnaire, and that one was made on the basis of an inquiry into alumni opinion. Three institutions endeavored to make evaluations by means of ascertaining the faculty or administrative opinion; two of these, as far as published statements are concerned, have used only this method, and one of these two schools is noted for training students in the scientific method!

The remaining thirteen published evaluations were of a more objective nature, some of them being used in addition to the student or alumni inquiries. This was true in the case of five of the twelve different institutions making statements as to the efficacy of their programs. Three comparisons were made between the results of their reorganized curriculums and those of earlier programs in terms of the academic performance of the students; three, in terms of objective-test results; two, in terms of the shortened time in obtaining a degree made possible by the new arrangement; and one evaluation was made on each of these bases: changes in the selection of courses by students; increase in the demand, on the part of the students, for new types of academic privileges; change in the drawing power, with respect to new students, of a new program; change in the holding power of a new program; and the comparability of operating costs under new and old organizations.

Of the twenty-four instances of evaluation considered here, five apparently were subjective, seven were seemingly objective, and twelve were a mixture of the two types. The figures take on an interesting significance when one recalls the large number of major plans that are being tried. Either too few evaluations are as yet forthcoming, in the sense of being available in educational periodical literature, or too few such

evaluations are being made. Neither situation can be considered desirable from the standpoint of educational research.

Due probably to the administrative nature of the problem it was too much to have hoped, or is too much to hope for the evaluation of any new type of curricular organization by means of a parallel-group method of experimentation. On the other hand, certain opportunities have presented themselves in the cases of the formation of a federation of colleges or the establishment of junior colleges as branches of the mother institutions which could easily have provided much better experimental bases for the determination of the relative merits of a new organization than has apparently been the case in the inauguration of so many new educational "plans."

THE failure to approach the problem objectively has been due in large part to factors other than organizational difficulties *per se*. As suggested earlier, the lack of meaningful research on some of the major aspects of higher education has resulted from the very nature of the educational process at the college level. McHale, in presenting some expert opinions on the future possibilities in liberal-arts education, comments upon the educational stagnation of the academicians in higher education thus:

> The naïveté of some of our experimentation indicates that our faculty and administration groups could profit from more information on the fundamentals of educational methods. . . . The immediate import of this educational inadequacy is that, despite a generation of research in elementary education and a considerable amount of investigation in the secondary field, we are relatively novices in research work in higher education.[3]

This backwardness of college educators will probably continue to operate as a check on major research at this level as long as there is such a diversity of opinion as to the function of higher education.

Meiklejohn points out that the lack of an objective approach to these major problems in higher education has, in certain cases, resulted possibly primarily from an educational opportunism on the part of a president with a plan, with an attending failure to utilize immediately available or easily accessible expert assistance in the planning and evaluation of a new curricular program. He puts it this way:

> How shall one go about the business of experimenting in a liberal college? That is a question which, so far as I can see, does not now admit of answer. Most of us who are trying to experiment are as yet so much excited by the opportunity given us, so fundamentally surprised by our good fortune, that we have had neither the time nor the mood for reflection upon our procedure.
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> In general one can say that the time for exact formulation of those methods [of evaluation] has not yet come. We are still in a stage of exploring, of working out step by step specific adjustments to specific conditions. Honesty requires one

[3] McHale, Kathryn. "Future Possibilities in Liberal-Arts Education: Some Expert Opinions," *Thirty-first Yearbook of the National Society for the Study of Education*. Bloomington, Illinois: Public School Publishing Company, 1932. Pt.II, pp. 231–55.

to say that in large measure we are feeling our way rather than thinking it.

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One of the most remarkable features of experimentation as now carried on in our colleges and universities is the slightness of its connection with the departments of education. In surprisingly small degree are the technical students of educational method responsible for the attempts at modification of existing procedures.

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If the leadership of our American colleges is stirring itself toward the critical reëxamination of teaching procedure, then 'experiments' will soon come to hold a different place in the educational scheme. They will not be so much the product of individual initiation or special circumstances, but rather expressions of deliberate purpose and planning.[4]

Research workers in the field of the social sciences, and particularly in the field of education, to no little extent have helped to obstruct the progress of this type of research at the college and university level. Our sins have been both those of omission and those of commission. On the one hand, we have failed to cause to develop certain basic attitudes that would be conducive to a scientific attack on these problems. It is probably our fault, for instance, that we have not caused those responsible for major changes to realize that any educational program causes, or is alleged to cause behavior changes, and that these changes in the behavior of the "exposees" are measurable in one manner or another. On the other hand, we have been too slow to challenge the few techniques of measurement that have been at our disposal and to develop other devices in the light of specifically stated aims and a significant social philosophy. We, ourselves, are probably responsible for the narrow point of view on the basis of which we tried to measure behavior and have probably caused reorganizers to assume that the only objective means which could be used in measuring the results of any program was an all too often hastily constructed battery of pencil-and-paper tests of the true-false type. Fortunately, some of the recent trends in the field of educational measurement are splendid reactions against this undesirable condition, but it will take much publicity and re-education along the lines of the Washington character-education experiment, for instance, to correct the narrow conception of measurement that has prevailed. It may also help if we could develop the point of view among those who may attempt to make evaluations that the validity of any measurement or evaluation depends not solely upon the extent to which that which is being studied has been measured, but also upon the social validity, or defensibility, of the particular philosophy that guides or influences that measurement.

[4]Meiklejohn, Alexander. "Some Notes on the Technique of Experimentation in a Liberal College," *Thirty-first Yearbook of the National Society for the Study of Education*. Bloomington, Illinois: Public School Publishing Company, 1932. Pt. II, pp. 213–20.

The Problem of Student Honesty

By F. W. PARR

Factors of Ability, Family Conditions, Social and Economic Status in Relation to Honesty

THAT cheating occurs in most college classrooms will be readily admitted by most students. However, the questions of how much and why students cheat have been debated for many years without making a great deal of headway. A recent press report disclosed that in one of our southern institutions cheating had become a rather general practice in the student body and that even members of the honor council had been found guilty of dishonest conduct. As a result, the "honor system" of the institution has been under fire and is due either to join the long list of defunct organizations which have failed during the past few years or to undergo a radical change.

The fact that the so-called honor systems are failing to function effectively in so many of our institutions should cause college administrators to give serious consideration to this problem. Before much headway can be made, it will be necessary to carry on a number of careful surveys such as the one referred to at the southern institution in an effort to discover why such conditions exist. Specifically, it is the writer's belief that the time is ripe for a series of extensive investigations to be made for the purpose of discovering the "why's and wherefore's" of student dishonesty. The purpose of this article is to suggest a somewhat crude approach to the problem. It is the writer's hope that other similar studies may be made so that the cumulative data may be used as a guide in analyzing the causes of student cheating.

The two problems with which this study deals are the frequency of cheating in a typical college classroom, and the factors that condition or are associated with such conduct. Although this investigation was made primarily to satisfy the writer's curiosity, he hopes that the results of the study will be of interest to other teachers and educators who are concerned with the scientific study of behavior problems. Some of the data of this study corroborate the findings of other investigations; other points presented are peculiar to this study.

It might be well, before proceeding with the discussion of the technique and findings of the study, to propose a few assumptions which are believed to be basic for a proper understanding of the material included in this report: First, that the cheating described in this study represents a type of undesirable behavior. Second, that

no person is incorruptible in conduct or behavior; that is, it is the writer's belief and contention that any individual will or could be made to deviate from what is considered "proper" conduct if confronted with a sufficiently potent incentive. Third, that there are various types and degrees of honesty and dishonesty; and the type of dishonesty which is discussed in this study may be considered to be one of the most serious, since it represents a deviation from "proper" conduct with slight provocation for such action. In other words, the individuals who were dishonest in this study might be considered the worst type, since their actions were with little or no incentive.

The data presented in this study were accumulated over a period of two years and involved some 409 college students. The technique used in this study was simple and almost "foolproof." In one of the writer's classes a number of standardized tests were given at the beginning of each quarter to determine the student's proficiency in various skills. By giving similar tests at the end of the term it was possible to measure the degree of improvement which each student made. It was in connection with the vocabulary test that the writer conceived the idea of carrying on this study on honesty. The vocabulary test is a multiple-response type in which the student is asked to identify the meanings of a list of 150 words by placing in the right-hand margin of the page the number of the correct response. In order to create a situation in which the students might have an opportunity to be dishonest, the writer made it a practice each term during this two-year period to administer the vocabulary test, to have it scored secretly by an assistant, and then to return it later to the respective members of the class for scoring. By making use of cross-section paper, it was possible to observe readily the discrepancies between the student's scoring and the secret scoring. In this study each changed answer on a test item was considered to be evidence of dishonesty.

The students were not aware that this study was being carried on. The information upon which most of the findings of this report are based was obtained approximately ten weeks after the initial testing upon which the evidence of dishonesty was based. In this report the writer will merely present his findings, and only in a few cases suggest possible explanations, for the purpose of this report is merely to present a picture of the situation as it existed in the writer's classes and not to account for the various findings presented. Of course, evidence based upon a slightly different situation might yield results which would differ both qualitatively and quantitatively from those obtained in this study, and, although a few conclusions and implications are proposed at the close of the report, some of them, without doubt, will be subject to debate.

CONSIDERABLE controversy centers around the question of just how much cheating takes place in the typical college classroom. Some students contend that practically

every member of their classes is dishonest in examinations, while many professors naïvely deny that any cheating takes place in their courses. Both of these extreme points of view may be correct or erroneous. The writer, however, was determined, in this study, to get some first-hand information to use in answering this question. During a two-year period in which this study was carried on, some 409 students were given an opportunity to react to the situation described earlier in this article. The 42 per cent who took advantage of the opportunity to be dishonest corresponds to the findings of certain similar studies carried on in other colleges. It is the writer's belief that we should interpret this 42 per cent as being a conservative estimate of the proportion of students who are likely to be dishonest in the typical college classroom, since little or no incentive for such conduct was offered in this investigation. That is, the students knew that the results of these tests, of which the vocabulary test was one, would have absolutely no bearing on their mark in the course.

Although the extent of cheating as discussed in the preceding paragraph is interesting and significant, the writer was more concerned in this study with discovering why students cheat. By means of a special questionnaire, information was obtained to determine the conditions that are related to student honesty. Specifically, each student supplied information concerning the following: sex, age, year in college, fraternity membership, nationality, occupation of parent, salary of parent, number and age distribution of brothers and sisters, population of home town, resident state, size of high school, rank in graduating class, affiliation with character organizations, church preference, number and type of high-school activities, college activities, and degree of economic self-support. The scholarship rating and psychological rating were obtained from the college office. The remainder of this paper deals with the relationships which were discovered between the various factors and the students' dishonest conduct. At the end of the report the writer hazards a few conclusions and recommendations for the consideration of those who may be interested in the problem of student honesty.

OF THE 409 students who took part in this study, the distribution according to sex was approximately equal. Of the 216 men involved, 98, or 45 per cent, were dishonest as compared to 74, or 38 per cent, of the 193 women students. Although this finding corresponds in general with the results of other studies and might, therefore, be listed as a significant factor relating to the problem of dishonesty, the writer believes that the sex difference is more apparent than real. In other words, it was discovered in this study that the average psychological rating of the women was higher than that of the men and that this fact might likely account for the difference in cheating attributed to the sex factor. Further discussion of this point will be given in a later section of the report.

That age is related in some manner

to the tendency to be dishonest is indicated by the fact that frequency of cheating in this study increased with the age of the student beginning with the seventeen-year-olds and going up to the twenty-one–year-old group. However, attention should be called to the fact that the oldest group involved in the study—twenty-two–year-olds—was more honest than any other except the seventeen-year-old one. It is the writer's belief that the reason for this apparent discrepancy is that this older group consisted of those individuals who, for one reason or another, could not go on to college at the time that they completed their high-school training but who have had enough ambition to continue their education in spite of numerous obstacles.

Since the course in which this study was conducted is primarily for college Freshmen, it is natural that the largest proportion of those who took part in the experiment were first-year students. However, since some 70 Sophomores took part in the experiment, some comparative data were available. A direct comparison of the Freshmen and Sophomores indicates that the latter were far more honest than the former, the percentages of cheating being 44 and 33, respectively.

A number of studies have been made in which direct comparisons were drawn between the honesty of the fraternity and non-fraternity men. Most of these seem to indicate that those students affiliated with fraternities have a greater tendency to be dishonest despite the fact that most of the organizations espouse certain high ideals and virtues. While this study shows that the fraternity man was more dishonest than the independent student, the difference is slight as compared with some of the other studies. It is interesting to note that there was practically no difference between the cheating of fraternity and non-fraternity men, the percentages being 47 and 43, respectively, in contrast to the significant differences found between sorority and non-sorority groups. As to why 44 per cent of the sorority girls were dishonest as compared to 33 per cent of the non-sorority, the writer can only guess. Disregarding the sex of the students, it was found that cheating was approximately 6 per cent more frequent among the fraternity group than among the independents.

IT WAS hoped that comparisons might be made between students representing various nationalities, but the number representing each group was so small that one would not be justified in presenting the data relating to this factor. It is interesting, however, to call attention to the fact that the students who claimed to be of Scandinavian descent were much more honest than the average of the group and considerably more honest than any other nationality classification.

To facilitate interpretation, the vocations of the parents were classified under the following six headings: professional, artisan, merchant, farmer, laborer, non-vocational. It is both interesting and significant that the percentage of cheating in-

creased in the order in which the six groups are listed. That is, only 30 per cent of the students representing the professional group were dishonest as compared to 64 per cent of those coming from the laboring groups. While the other occupational groups distributed themselves evenly between these two extremes, it is again possible that these differences may be due more to other factors than the occupational status of the parent.

While it is realized that few college students may know the exact salary or income of their parents, the writer hoped to increase the reliability of his data by having the students indicate the family income in a threefold classification as follows: below $2,500 a year, $2,500 to $5,000, and over $5,000. If we can assume, therefore, that the data on this factor are fairly reliable, we may conclude that there is little, if any, relationship between the income of the parents and the tendency of the students to be dishonest, since the percentages for each of the three groups were approximately equal. This fact is especially interesting when one considers the relationship which was pointed out between the occupational status and the dishonesty of the students.

It is sometimes said that the number of children in a family conditions the type of training which they are likely to receive. To determine the validity of such a contention, the writer grouped the students who took part in this experiment into six classifications, ranking from the family having an only child to that having six or more children. On computing the percentage of cheating for each of the six groups, it was discovered that there was little or no difference in the extent of dishonesty. As a matter of fact, the percentage of cheating for the two extreme groups was identical, 43 per cent.

Classifying the students according to their age position in relation to other children in the family, it was found that this factor has little, if any, relationship to dishonesty. Those individuals who were the oldest members of the family were slightly more honest than those who were the youngest, or those who had brothers and sisters both older and younger than themselves. Such differences, however, were again shown to be insignificant.

Contrary to the prevalent belief that those who come from smaller towns are usually more honest than those from the larger ones, this study showed the opposite tendency. In using a fourfold classification in which towns were ranked according to their population (below 1,000, 1,000 to 4,999, 5,000 to 9,999, and over 10,000) it was discovered that 71 per cent of the students coming from the smallest towns were dishonest as compared to 43 per cent of those from the largest towns. However, the group including those cities from 1,000 to 4,999 population showed the smallest percentage of cheating of all the four groups. The writer has no explanation for this fact but plans on making a further study of this aspect of the problem.

As in most public institutions, the college in which this study was conducted draws students from certain surrounding states. Since only 18

per cent of the students in this investigation represented other states, the writer feels that the findings relative to this factor may not be accurate. However, it was interesting to note that exactly 50 per cent of the out-of-state students were dishonest in this experiment as compared to 40 per cent of the local students. The writer believes that certain other factors discussed in this report may account for this difference.

THE size of the high school attended has probably less influence on the individual's behavior, as measured in this study, than any of the other factors considered. That this is true is indicated by the fact that the range of cheating was no greater than 3 per cent between any of the five groups used in the classification.

The data revealed that those who graduated in the upper one-third of their class were far more honest than those who ranked in the middle group, the percentages being 34 and 47, respectively. It would have been interesting to have compared these two groups with those who ranked in the lowest third of their class, but, unfortunately (probably fortunately) this group does not go to college.

Although the number of students representing the various character organizations was too small to warrant any definite conclusions, it was interesting to note that those individuals who participated in the study varied in their reactions according to their different groups. For example, those students who indicated an affiliation with the Boy Scouts of America were far more honest than any of the other character organizations for boys, while the Campfire Girls' group made a similar record among the organizations for girls. A careful study of a larger group of students under similar conditions might provide a body of interesting data which could be used to determine the effectiveness of the programs of the various character organizations.

The students in this study were asked to indicate their preference or affiliation for the various religious denominations, and, when their choices were tabulated, it was discovered that more than a dozen different groups were represented. As a result, it is evident that the number of individuals representing any one denomination was too small to warrant drawing any definite conclusions from this study. A more representative sampling from each church group might again suggest a method of determining the effectiveness of its program of training or the type of people it attracts. Although a difference in the honesty of students representing the various denominations was noted, it would be unfair to publish results which are based upon such inadequate sampling.

It has been frequently contended that an individual's leisure activities are definitely related to his character. To get evidence on this particular point, the students in this study were asked to list the extra-curricular activities in which they engaged during their high-school period. An examination of the tabulated facts indicates that, although the type of activity in which the individual en-

gaged had little or no relation to his tendency toward dishonesty, the number of activities did have some bearing. In other words, the percentage of cheating in this experiment was found to increase with an increase in the activity-load of the student, a total of 36 per cent cheating for those who engaged in only one activity as compared to 57 per cent of those who took part in more than four. The writer believes this to be a significant observation.

FOR purposes of comparison, data were obtained concerning the types of activities in which these students engaged in college. As in the preceding section, there seems to be little relationship between the activities in which the students engage in high school and their tendency toward dishonesty, but it should be noted here that such is not the case in college. It may be a hopeful sign to point out that of those students who were actively engaged in publication enterprises in college, only 32 per cent were dishonest in this experiment. However, that accusations frequently made against the politician may have some basis of validity is indicated by the fact that those students who were taking part in the political affairs on the campus showed the highest percentage of cheating, 59 per cent. That athletes ranked next highest in cheating may or may not be significant.

One of the most clear-cut findings of this study pertains to the factor of economic self-support. The students were asked to indicate their economic position by stating whether they were entirely self-supporting, partially self-supporting, or non-self-supporting. With the fairly equal distribution of students representing each of the three groups, it is interesting to point out that of those who were totally self-supporting, 53 per cent were dishonest as compared to only 34 per cent of those non-self-supporting. Of those who were partially self-supporting, 45 per cent succumbed to the temptation of cheating. These facts are all the more interesting since they tend to disprove a rather prevalent belief that students who are enterprising enough to work their way through college are outstanding in most of the character traits.

As is true in many colleges, the school in which this study was carried on makes it a practice at the middle of each term to notify those students who are doing unsatisfactory work in their various courses. Comparing the cheating of students on the basis of the number of delinquency reports received, it was found that those who were not in scholastic difficulty were far more honest than those who received such reports, the percentages being 40 and 51, respectively.

As further evidence of the relationship between the students' scholarship and their tendency to cheat, the writer made use of the marks which were assigned in the course in which the experiment was conducted. The following percentages of the mark groups indicate a very definite relationship between dishonesty and scholastic rating: *A* group, 18 per cent; *B* group, 35 per cent; *C* group, 44 per cent; *D* group, 58 per cent. Not

enough *F* students completed the course to yield a reliable figure. It is the writer's opinion that this particular body of evidence should be given serious consideration by those who are interested in the problem of student honesty.

The final and probably the most significant factor considered in this study was the psychological rating of each student based on the American Council Psychological Examination. For comparative purposes, the writer classified the students into the four quartile groups by using the standard statistical technique. That mental ability is definitely related to the type of condition which was considered in this study is quite evident from the following facts: Of those students who ranked in the upper one-fourth, only 15 per cent were dishonest; in the next group, 33 per cent; in the next, 50 per cent; while 57 per cent of those in the lowest one-fourth took advantage of the opportunity. It is to be noted that cheating was four times as frequent in the lowest group as in the highest.

THE purpose of this study was to determine, if possible, the extent of cheating which takes place in a typical college classroom and the factors related to such behavior. In the experiment, which was carried on over a period of two years, the writer subjected 409 college students to a situation in which an opportunity to cheat on an examination was offered. At a later time, he procured from these students personal information which was used to determine the relationships discussed in this paper. The facts obtained are considered to be significant, since more than 42 per cent of the students were dishonest, even though little incentive was offered for such behavior.

The major part of the study deals with the relationship which was found between dishonesty and a variety of personal factors. The most pronounced relationships to dishonesty were found to be age, occupation of parent, rank in graduating class, degree of economic self-support, scholarship, and mental ability.

The writer believes that the facts presented in this study warrant the following conclusions: First, that a large proportion of college students are likely to be dishonest in the classroom, if given an opportunity. Second, that the type of dishonesty discussed in this study is definitely related to certain personal factors, such as age of entrance to college, mental ability, scholarship rating, occupation of parent, and the necessity of economic self-support. Third, that there is, apparently, a tendency on the part of college students to be dishonest whenever such conduct is necessary to enable them to compete successfully with other students. Fourth, that any factor or condition which brings pressure to bear upon the student will tend to produce dishonest behavior. Fifth, that differences in mental ability have a more pronounced influence on the type of dishonesty considered in this report than have any of the other personal factors. Sixth, that participation in extra-curricular activities interferes with the student's scholastic success to such an extent that the individual will be forced to

resort to dishonesty in the classroom in order to compete with his classmates.

It is dangerous to attempt to generalize on the findings of a study such as this; however, the writer believes that this report would be incomplete without a few suggestions as to possible applications of the data. The most interesting phase of this study, in the writer's opinion, and probably the most significant is the fact that all of the findings tend to support the general theory that any factor which serves as a handicap to an individual or brings pressure to bear upon him is likely to produce dishonest behavior. It is to be noted that most of the factors with which cheating was related might be considered types of personal handicaps which force the individual to resort to dishonesty. If the study warrants such a general conclusion, then it becomes incumbent upon educators and parents to set up a character-training program which will focus attention upon those individuals who are most likely to be tempted to deviate from proper conduct. If, during their early years, we can teach individuals to aspire to success in school or in life through honest means only, we will be making a long step toward training honest young men and women for the future. We have been too prone to encourage the individual to succeed at any cost, which often suggests methods of substitution for sincere effort.

The findings of the study not only suggest a logical approach in setting up the character-training program, but they may also indicate some pronounced weaknesses in our school organization. Since the recent emphasis in character training suggests the need for a better understanding of the factors underlying various forms of misbehavior, the results of this study should prove quite helpful to college professors and administrators who must deal with such problems. If, for example, a certain student is continually resorting to the practice of cheating, an instructor may be sure that certain factors or conditions are producing such conduct, and a serious effort should be made to discover them. It is the writer's opinion that cheating in the classroom could be materially reduced if teachers would use greater care in setting up their work, seeing to it that, whenever possible, the educational program fits the needs, interests, and abilities of the student. [Vol. VII, No. 6]

· With the · Technicians ·

Changes of Opinion

First-year students find in college courses that many of their ideas and their interpretations of facts are immature and incorrect. To many of them this blasting of their old opinions and attitudes comes as a severe shock. The presentation of this new "unheard of" information undermines for many of them their feeling of security gained by adherence to their accepted ideas. The conflict between the accustomed and the new often extends beyond academic considerations into domestic, religious, economic, and political beliefs.

Orientation courses have been introduced in several universities for the purpose of familiarizing students with new ideas in particular realms of thought. At the University of Oregon an attempt has been made to gauge the changes in students' opinions which have resulted from taking the orientation course entitled "Background of Social Science."[1] The major purpose of the course has been "the inculcation of an attitude of scientific objectivity and criticism of socially inherited prejudices." Special attention has been given to the "presentation of diversified and controversial social values and attitudes."

In the fall and in the spring of the year 1931–32, a test comprising 29 questions was given to the freshman students enrolled in this course. Because of lack of time and money the records of 75 of the 338 students were studied. This sampling was carefully chosen to include students of all intelligence ratings. The following items were considered in the selection: sex, psychological rating, percentile rating, accumulative academic rating, grade average for the year in the Background course, other courses taken, courses of major interests, religious preference at the beginning of the year, church membership, parent's occupation, place of residence, and degree of self-support. The statements in each portion of the questionnaire were rated as true, 1; less true, 2; and least true, 3. A change of opinion from 1 to 3 or 3 to 1 is designated as "major positive." A "major negative" would be the reverse of what the instructors tried to inculcate, namely, a biased and unwarranted, hence unscientific, reaction pattern. Some students answered certain questions both in fall and spring with a decided bias, showing no change in their prejudices.

The percentages of students undergoing various changes in opinion during the year follow:

Changes	Men	Women
Major positive	77	78
Minor positive	97	97
Major negative	31	64
Minor negative	80	64
Bias retained	82	75
Scientific retention	18	25

[1] JAMESON, SAMUEL HAIG. "Changes in the Opinions of Students Taking the Background of Social Science Survey Course at the University of Oregon." Eugene, Oregon: University of Oregon, 1935.

"Undeniably," says Mr. Jameson, interpreting his findings, "there appear definite changes in opinions . . . [which] present definite trends in the direction of . . . the creation of a scientific reaction pattern." Of course, not all changes elicited in connection with the questionnaire can be attributed to the course itself, for other experiences contributed either positively or negatively to these changes in opinion.

A fair percentage of the students were found to have a scientific outlook of varying degrees when applied to heterogeneous social questions. There seemed to be a tendency to change in small rather than large degrees as was shown by the predominance of minor rather than major changes. Students of the low percentile ratings showed no marked differences in their changes of opinion when compared with students of high percentile rating. Abstract problems showed least changes in character. The women students retained fewer biases and held to the same positive changes, but showed a larger degree of wavering in both positive and negative minor changes than the men.

A Study of the Teaching-Load in English Composition

In the spring of 1935, the University of Florida began a complete revision of its method of instruction in the freshman and sophomore classes in preparation for the induction of the General College to the University. One of the studies[2] of the Advisory Committee on Freshman English centered about the problem of the teaching-load of English instructors.

A brief letter was addressed to the heads of the English departments of fifty of the leading colleges and universities in America. This letter had attached to it a self-addressed postal card having four questions printed thereon. The recipient had merely to insert four answers, detach and mail the card. Replies were received from 64 per cent of the colleges and universities questioned. Listed here are the colleges and universities from which replies were received:

Alabama Polytechnic	Nevada
Brown	New Hampshire
Clemson	Oglethorpe
Connecticut State	Oregon
Cornell	Princeton
Creighton	Purdue
Delaware	Rutgers
Duke	Sophie-Newcomb
George Washington	Southern California
Harvard	Stanford
Illinois	Syracuse
Indiana	Temple
Kansas State	U. S. Military Academy (West Point)
Maine	Virginia
Michigan	Yale
Missouri	
Nebraska	

From a compilation of the answers to the question, "What is the normal number of hours per week that a full-time instructor in your department spends in classroom teachings?" it was discovered that twelve was the average, the mode, and the median measure of the number of hours per week which English instructors of composition spent in the classroom.

There was a greater range in the number of students taught by such instructors than in the number of

[2]Reported by W. A. Clark, Jr., instructor in English, University of Florida.

hours taught. One school reported a maximum load of 70 students for instructors of English composition, while two listed 250 as the number of students taught by such instructors. While the average number of students taught was 123.2, the mode, which gives the number listed by the greatest number of colleges and universities, was 100.

Twenty-eight of the 32 English departments require instructors to hold weekly conferences with students. The instructors in these schools spend on an average 4.91 hours per week in such work.

The Reading Interests of Freshmen[3]

A study of the reading interests of the Freshmen at the University of Louisville was made in September, 1935, to determine topics which might be utilized for the content of the course in which they were enrolled, Survey of the Social Sciences. Through the efforts of T. F. Haygood there were obtained about 180 anonymous replies to a questionnaire on reading interests, a sampling of three-fifths of the freshman class. Questionnaires were completed also by certain members of the faculty.

The questionnaire employed was one devised by Douglas Waples and Ralph W. Tyler and used in their study of group interests, *What People Like to Read About*. Some of the techniques used in the Louisville study, the method of calculation, and all of the comparative data were borrowed from the Waples-Tyler study.

Close agreement was found between the reading interests of the faculty and students, and between the reading interests of men and women. Closer agreement of reading interests appeared between women of all groups and men of all groups than were found between men and women of the same group; that is, the interests of the Louisville women agreed more with the women of Minnesota reported in the Waples-Tyler study than with the men at Louisville. It would be an overstatement to say that any one of the main topics was either interesting or uninteresting, because the various aspects of a single topic differed in appeal.

The topics of more than average interest to all groups were war and peace, crime, sex, education, the home, values and problems of science, health and hygiene, and psychology. A few generalizations are drawn from each of these, as examples of the kinds of interpretations possible from the findings:

Interest in peace movements was as keen as that for "preparedness and the next war."

"The detection and prevention of crime" was of more import than "crimes." Women expressed more interest in the former than did men.

Men were more interested in "birth control and eugenics" than were women. Men were quite disinterested in the "men versus women" controversy; women, of course, were much interested.

For all students the "college and higher education" was a paramount issue.

The high ratings given to "successful

[3]Adapted from the mimeographed report "The Reading Interests of College students" (Research Office Service Study, No. 1), distributed by the University of Louisville.

marriage," "parents' relationships with children," and "getting along with relatives," explained the high rating given the home. The other three topics, "the home garden," "the family car," "household management and food preparation," fell in the "uninteresting" class.

"Science and warfare," again emphasizing the interest in war, and "facts about mankind" accounted for the high rating in science. The social values of science and the facts of pure science dominated.

The psychology of personality was uppermost in the minds of students. On all the topics in which they had expressed interest, in none were they more definitely positive.

The common factor determining interest was familiarity, or else the issue was a personal one. On the other hand, least interest was expressed for topics that were familiar, or that smacked of invisible or seemingly unconquerable powers, such as, industrial conditions, prosperity, organization and administration of business, foreign trade, the money market, investments, development in the automobile industry, mining and metal industries. But in the realm of the uninteresting falls, with no degree of uncertainty, subjects pertaining to animal and plant life.

The thoughtful teacher may well question the absoluteness of such a rating device. It is to be noted that the personal element is emphasized, but if education is to achieve one of its purposes, that of educating for social sensitivity, it cannot rely upon these students' expressions of interest. And, indeed, we do find when we examine the topics more closely for their social importance that our students do not have this awareness of social problems. Women students are quicker to recognize them than are men, but, on the whole, the students expressed interest for only about one-half of the important social issues. Indeed, they seemed a little poorer at these recognitions than the other student groups reported in the earlier study.

The April issue of the *Review of Educational Research* is devoted to a review of recent literature pertaining to Pupil Personnel, Guidance and Counseling. A. J. Brumbaugh prepared the sections dealing with higher education. In them are summarized 70 studies concerned with characteristics of pupil populations, 70 studies concerned with guidance and counseling, and 51 studies dealing with extra-curriculum activities.

Engineering Degrees

The Committee on Engineering Degrees appointed by the Society for the Promotion of Engineering Education in 1933 to draw up suggestions for greater standardization of the degrees awarded by the professional schools was authorized at the annual meeting of the Society in 1935 to send a letter ballot to each member asking his opinion regarding the adoption of certain recommendations embodied in the report. A summary of the returns of this letter ballot is given by Dean O. M. Leland, of the University of Minnesota, in the *Journal of Engineering Education* for April. The approval of the members of the Society in the ratio of 4 to 1,

supported the sequence of earned degrees to be Bachelor, Master, Doctor, of whatever branch of engineering was specified, as B.C.E. for Bachelor of Civil Engineering. Honorary degrees, supported 8 to 1, were Doctor of Engineering (D. Eng.) and Master of Engineering (M. Eng.). The policy of discontinuing the use of the professional engineer degrees, such as C.E. (Civil Engineer) was supported by a vote of 3 to 2.

State Teachers' College

One of the problems confronting administrators of tax-supported teachers' colleges is the question, What is to be the relation between the teachers' college and the answer which the state is to make to the evident demand for increased junior-college opportunities? A report of an attempt to answer that question is presented by V. E. Van Patter in the January issue of *Educational Administration and Supervision*, under the title, "Junior College Work in the State Teachers Colleges."

The catalogues of 133 tax-supported (white) state teachers' colleges giving four or more years of college work were examined to find the institutional attitude or policy toward liberal-arts junior-college work and the institutional provision for liberal-arts junior-college work as revealed by the curricular requirements.

Seventy colleges were devoted entirely to teacher-training institutions. In twenty-eight of the institutions, no formal published invitation or provision for non-teacher-training work was made, yet their curricular requirements were such that two full years of academic junior-college work could be taken without penalty as to credits or as to fees. Thirteen of these teachers' colleges published a formal invitation to those desiring two years of purely academic junior-college work and made curricular provisions for this work. Twenty-two were full dual purpose institutions; that is, they gave four years of teachers'-college work and also four years of academic liberal-arts work, provision being made in some cases for the granting of two different types of degree, the A.B. or B.S. for liberal arts and a B.E. or some similar equivalent for the four-year teacher-training graduates.

One very disturbing conclusion relating to teachers' colleges is that the administrative bodies responsible for forming the broad policies for the education of teachers in the teachers' colleges do not proceed on any generally accepted body of administrative tenets; instead, seven different tenets are discernible in the catalogue statements.

Two fundamental questions are presented by this survey of existing arrangements for and attitudes toward junior-college work within the teachers' colleges: First, Is the best possible curricular plan of teacher education based on two or more years of conventional liberal arts? Second, Is the most practical plan for answering the demand for junior-college work one which involves use of existing teachers'-college facilities? To these questions, however, the author makes no pretense of being able to give acceptable answers.

·The·Reporter·

FOLLOWING the example of several other institutions, Syracuse University has established an art collection from which pictures will be loaned to students for hanging in their rooms.

ON June 12, Albert N. Jorgensen will be inaugurated president of Connecticut State College. Governor Wilbur L. Cross will preside and Chancellor Samuel P. Capen of the University of Buffalo will give the address.

THE *Harvard Crimson* reports that in the past five years major registration in the Department of Sociology has increased 40 per cent. Enrollments in beginning courses of the Department have increased over 400 per cent.

FROM June 22 to July 3 Northwestern University will conduct its Fifth Annual Mid-West Institute of International Relations. During this period classes, round tables, discussions, and lectures will be conducted by internationally known leaders in education, political science, and public life.

THE first results of the new policy of Harvard University in granting younger faculty members a half-year leave of absence for independent research work were announced late in April. The plan, which is comparable to the Guggenheim Fellowships, this year provides leaves of absence for ten young scholars. This will be the first time in the history of the University when members of the faculty holding lower ranks have been granted this opportunity to carry on their investigations without teaching and administrative responsibilities.

THE board of curators of the University of Missouri late in March set itself on record as opposed to the admission of Negroes to the University. A Negro from St. Louis had applied for admission and when refused brought mandamus action to compel the acceptance of his application. In continuing its traditional policy of excluding Negroes, the University authorities referred to the state constitution and the statutes which provide for separate schools for Whites and Negroes.

RECENTLY the Dean of the College of Arts at the University of Michigan wrote to all members of the senior class requesting them to check the names of professors under whom they had classes and to double check those who, in their individual opinions, deserved an increase in salary.

FOLLOWING a recent agreement, the four teachers' colleges of the State of Kentucky will abandon their graduate instruction which from now on will all be undertaken at the University of Kentucky. Meanwhile, the College of Education at the University of Ken-

tucky will drop the first two years of its teacher-training course. The plan was worked out at a conference attended by the governor of the state, the president of the state university, and the presidents of the four teachers' colleges.

A NEW corporation to be known as United University Presses, Inc., has been announced by Farrar and Rinehart. This new organization will act as a service corporation for university presses throughout the country. It will offer New York headquarters for out-of-town presses and will provide such services as manufacture, sale, and distribution of all titles on their list. A joint showroom will be an important feature of the company's work. Offices have been established at 232 Madison Avenue, New York City.

A CAMPAIGN to raise $300,000 recently has been successfully completed by Furman University. At the beginning of the last day some $24,000 was still needed to complete the campaign, but eight citizens of the city of Greenville, South Carolina, underwrote this sum.

THE United States Commissioner of Education reports that 85 universities and colleges in 38 states are participating in the Projects in Research in Universities being conducted by the Office of Education. These investigations are being financed by the fund of $500,000 made available by the Federal government.

THE Board of Regents at the University of Wisconsin, carrying out legislation recently adopted, has established 668 scholarships, each amounting to $55 a year, the general fee of the University. Under conditions set up by the law the secondary-school student ranking first in scholarship in schools enrolling under 250 students will be eligible for one of these scholarships; the first and second in scholarship in schools enrolling 250 to 750 students will be eligible; and the three students ranking first, second, and third in schools enrolling more than 750 students also will be recipients. Parents or guardians of these students must be residents of Wisconsin.

THE Fiftieth Annual Convention of the Association of Land-Grant Colleges and Universities will be held at Houston, Texas, November 16–18, 1936. Headquarters will be at the Rice Hotel.

THE University of Minnesota, beginning in 1937, will offer a new degree, Master of Business Administration. The curriculum being developed for this degree will be similar to that offered by the Wharton School at the University of Pennsylvania and will be quite dissimilar to the work for the same degree being offered at Harvard and Stanford.

THE Board of Trustees of Lehigh University has approved the reorganization of graduate study leading to the degree of Doctor of Philosophy. Lehigh dropped work for this degree forty-two years ago.

THE Rockefeller Foundation and the General Education Board have announced an appropriation of $3,350,000

to the University of Chicago for the purposes of its Oriental Institute. Of this total $1,350,000 represents an unexpended balance of a ten-year grant made by the foundations in 1928. The remaining $2,000,000 is new money which may be used for such purposes as the University and the Institute may determine.

DURING the week of June 29 to July 3 the University of London will celebrate the 100th anniversary of the granting of its charter by William IV.

MANY Seniors of the City College of New York in their annual election this year refused to vote on the best dresser of the class. They wrote in on their ballots after this item: "Too bourgeois."

THE Austrian government announced on May 1 that compulsory camps are to be established this summer for university students as a prerequisite for graduation.

A COMPLETE reorganization of the social-science–survey course at the University of Chicago is being proposed. The plan being discussed involves the dropping of the present three distinct sections of the course and its reorganization around the concept of freedom versus control.

FOR the past year and a half, a committee of faculty, alumni, and students of Dartmouth College have been studying the social life of the college. A preliminary report of the committee makes a recommendation that national fraternity affiliations be dropped. Twelve of the committee signed this majority report. A minority of two submitted a report proposing that the national fraternity affiliations be retained. No action from the administration is expected in the immediate future.

THE annual $1,000 scholarship award to a German exchange student has been dropped by Williams College because of the conviction of the administration that no German Nazi student can be found who is open-minded enough to profit from what an American college has to offer.

THE Dean of Men at the University of Wisconsin has submitted a new student code consisting of seven items. During the month of May the students will register their vote on the desirability of adopting the code. Meanwhile, student groups are actively campaigning against its adoption.

STUDENTS of the College of the City of New York are again at odds with the administration. This time several hundred of them are protesting against the discharge of a member of the English Department faculty. The administration reports that he will not be reappointed next year because of his inefficiency. The students insist he is being dropped because he is reported to be a member of the Communist party.

EARLY in May thirty-two hundred students of the Washington State College refused to attend classes in protest against social conduct rules

set up by the Dean of Women. A faculty committee met virtually all demands made by the spokesman for the students which included Friday- and Saturday-night social privileges until one A. M. instead of midnight, the dropping of compulsory class attendance, and permission for women students to serenade.

EARLY in May a communist red flag was hoisted during the night over the United States Supreme Court Building at Washington. A few days later the editors of the *Harvard Lampoon*, comic monthly, disclosed that the flag was raised at Washington as a publicity stunt by members of the *Lampoon* staff. This announcement was made only after the editors were able to discover that no disciplinary action would be taken against them.

THE University of Kansas announces a revision of its group system to become effective with the class graduating in June, 1940. The new system provides for a reduction of the number of groups from eight to four: Group I includes languages and literature; Group II, the social sciences; Group III, the natural sciences; and Group IV, such subjects as home economics, religion, designing, drawing, painting, music, military sciences and techniques, and physical education.

Students at the end of their sophomore year elect a major, which may not exceed 40 hours, and may not be less than 20. The major department may prescribe only 25 hours of the major work. A maximum of 25 hours is allowed in departments other than the major of the student; the maximum in a field of one department is 60, and the maximum in any group is 80 hours. All students are required to take at least one laboratory course, and at least one course in literature, English or foreign. All graduates are required to present 10 hours of some foreign language, or if presenting two units of high-school foreign language, have it validated by passing a proficiency examination in the reading of ordinary prose of that language.

ON May 22 Ohio State University commemorated the twenty-fifth anniversary of the founding of its Graduate School. The program included an address by Dean Guy Stanton Ford, of the University of Minnesota, who spoke on the next twenty-five years of graduate study and research in the field of the humanities and the social sciences, and an address by Dean F. K. Richtmyer, of Cornell University, who spoke on the same theme as it applied to the natural sciences.

BANDING together for mutual aid in solving common problems, the fifteen major privately endowed colleges of California have completed details for the organization of the Conference of Privately Endowed Colleges of California. Prepared to meet regularly twice a year, and oftener if necessary, the Conference will be headed for the first year by Miss Aurelia Reinhardt, president of Mills College. The vice-chairman is Mr. Bird, president of Occidental College

at Los Angeles, and the secretary-treasurer is Miss Allyn Loosley, dean of the School of Economics and Business Administration at Saint Mary's College.

THE Second National Conference on College Hygiene will be held at Washington, D. C., from December 28–31, 1936. The sponsors of this Conference are the American Student Health Association, the National Health Council, and the Presidents' Committee of Fifty on College Hygiene. The topics to be discussed include health service, health teaching, and the relation of college hygiene to teacher training in secondary schools.

THE Massachusetts House of Representatives again has set itself on record as in favor of the Teachers' Oath Law. Despite the opposition of college presidents and professors of Massachusetts colleges and universities who appeared before a committee of the House, the final vote taken early in April was 133 to 88 in favor of continuing the law upon the statute books. Representative Thomas Dorgan, author of the oath law, spoke for the bill in part as follows:

> I want to ask two important questions. First, in what way does the oath restrict academic freedom, and second, is not the oath designed to uphold principles of freedom of speech?
>
> What I cannot understand is why a number of professors belong to American organizations which are listed in the *Congressional Record* as being controlled by Communists.

Mr. Dorgan listed the American Civic Liberties Union and the American Society for Cultural Relations with Soviet Russia as Communist-controlled. Opponents of the bill pointed out that patriotism cannot be legislated.

A PEACE INSTITUTE will be held at Oberlin College from June 12 to 16 under the sponsorship of the University of Akron, Baldwin-Wallace College, Case School of Applied Science, the College of Wooster, Denison University, Hiram College, Mount Union College, Oberlin College, Ohio Wesleyan University, the University of Toledo, and the Carnegie Endowment for International Peace. The main work of the Institute will be done in three regular courses, each of which will meet daily (except Sunday) for an hour's lecture and a half-hour's discussion. The first of these courses will deal with the Political and Social Causes of War, and will be given by Oscar Jaszi, head of the Department of Political Science in Oberlin College; the second will deal with the Economic Causes and Consequences of War, and will be given by Harvey A. Wooster, head of the Department of Economics in Oberlin College; the third will deal with Resources for Peace, and will be given by Quincy Wright of the University of Chicago.

Registration is open to students now registered as undergraduates or graduates in any college or university in the United States. Total cost for each student, including room, board, and tuition, will be $20.

·Editorial·Comments·

Academic Responsibility

ACADEMIC freedom means the right of scholars to teach the truth no matter where its implications may lead. It means protection for the teacher against the opposition of those who are in error, however highly placed and powerful they may be. The safeguarding of authority to assemble valid data and draw true conclusions is fundamental to the enrichment of the culture of a nation. The defense of academic freedom is the serious concern of scholars and should be the active responsibility of social leaders.

Fortunately for college professors and high-school teachers in America, this nation has constitutional guaranties of free speech which by the weight of their traditional influence pull the punches of those who are opposed to the teaching of disagreeable truths. The constitution sets the central tendency of the public opinion of the nation. Its nebulous but powerful influence prevents the opponents of free speech from having their undisputed way in suppressing the expression of what they feel to be undesirable doctrines.

For this, American scholars are grateful. They are proud of their guaranties when they consider the low estate of the once proud scholarship of Germany, Russia, and Italy where the right of free investigation has been destroyed by dictatorships. American scholars bear up against attacks with calmness and fight for their rights with vigor because in their hearts they know that American traditions and public opinion are their powerful allies.

The academic freedom for which scholars fight is, however, not synonymous with freedom of speech. American professors do not claim the right to express any opinions they may hold. In demanding academic freedom they claim the right to present the truth. They recognize that while the citizen may, under the constitution, say what he pleases, the scholar must have valid grounds for his conclusions. To them truth is demonstrable, and they are under obligation to teach what can be validated.

This position is of particular interest in controversial areas such as the social sciences. In these areas it is difficult to arrive at truth. When two positions are in opposition, it is obvious that neither may be completely valid. The fact that sincere scholars oppose each other shows that each is partly right; each is partly wrong: a true conclusion has not been reached. If one were completely right, there would be no argument because the case would be proved and argument would cease. In conflicts the truth is a statement of the strength and weakness of both sides.

Academic freedom which is based upon the presentation of the truth

in controversial areas demands the analysis of the dispute and the impartial presentation of the arguments for and against the positions. When the scholar espouses one side in preference to another, he is not presenting the pure truth because the opposing position also has strength. When the professor steps out of the rôle of impartial reviewer and interpreter of a controversial subject and heatedly espouses one proposal in preference to another, he can demand protection on the basis of freedom of speech but not on the basis of academic freedom.

The college professor and the high-school teacher who deal with problems in the area of conflict have, therefore, an academic responsibility to care for. They cannot justly demand the rights of academic freedom if they support one side of the conflict in unbalanced fashion without due consideration for the weaknesses of their position and the virtues of the opposing cause.

Just where the vague area between demonstrable and partial conclusions lies is often difficult to determine, and it is in this area that most of the practical problems of academic freedom lie. Whether a particular professor has the right to demand the protection of the principle of academic freedom or not is frequently a perplexing question which can be settled only in the local situation. But the position is sound that when a professor espouses one cause in preference to another conflicting proposal he thereby becomes subject to the charge that he is not presenting a wholly valid proposal. The responsibility of the teacher is to present the whole case with balance and not in his enthusiasm to hold to one solution and ignore the virtues of another. When he becomes an unbalanced proponent of one side of the conflict, although he still has the constitutional right of free speech, he cannot rightly demand the protection of academic freedom.

W. W. C.

··Reviews··

Philosophical Dialogue

THE LAST PURITAN, *by George Santayana.* New York: Charles Scribner's Sons, 602 pp. $2.75.

Two Ohio investigators have announced the discovery that creative writing is done before the age of forty-five. They were careful to make *The Last Puritan* an exception to the rule. It seems to be agreed on every hand that Mr. Santayana's novel is perhaps the outstanding one of its generation—to put the claim with restraint. Some critics have gone so far as to question not only the literary taste, but the intelligence, of anyone who so much as hesitates at this point.

Perhaps this general estimate is correct. The book is certainly powerful, rich in aphorisms and insights, and penetrating in remarks about life and manners and the vast natural frame of things. It is a beautiful literary expression, perhaps a little too self-conscious, a little too perverse, of an extraordinarily mature and wise person. But as a novel it seems to me an inartistic book. The author, not the characters, do all the talking. Mr. Santayana, the philosopher, impersonates all the actors in the drama. It is his speech, his manner, his ideas, his mood one detects behind every disguise of sex or character or station. True, this is in a way admitted in the author's explanatory remarks. But in a really great novel the admission would not have been necessary.

To put the matter in another way, it is hard to read the book as a novel at all. Its kinship is with the philosophic dialogue. In his *Dialogues in Limbo*, Mr. Santayana remained close to the dialogue form of Plato, his master, if he has a master. In *The Last Puritan* the dialogue is expanded into the novel form, but the scheme is still the dramatization of the philosophic quest for the meaning of life. And with this change comes another. The confident search for truth and significance is replaced by a profound spirit of disillusionment, by a heavy weight of world-weariness which no action, no episode, no beauty of expression can lighten, indeed which every device serves to impress upon the reader. "This is to be a tale," as the prologue says, "of a sad life"; a tale of a sad life and of the sadness of life as a whole.

A paragraph may suggest the elements of the story. Oliver Alden is an only child in a family with money and of a puritan outlook. His father finds release three-fourths of the year sailing in a yacht, where he meditates on the futility of living. His puritan mother spends her days in dutiful devotion to causes. Oliver is brought up in the rigors of puritanism, in a home without warmth of affection or sympathy. He goes through a regimen of things devised by his mother for him to do. Any tendency to spontaneity of action or feeling is frowned upon. He acquires a strong sense of duty which dominates every natural action. Loathing football, he plays it because it is his duty to Williams College. Without any feeling of love, he offers marriage to young women because it is his duty to found a house. He is a pacifist, but his sense of duty forces him into the war. Something in him flares up to seize a moment of natural happiness and the command of his puritan training brings it to naught. The inner check of duty grows upon him as his knowledge of the world lays bare the sordidness of multitudes of lives. Finally, he dies in a motorcycle accident, just after the armistice, leaving a will which makes handsome provision for the last woman who had rejected his proffers of dutiful love and marriage.

One closes the book not only with the feeling which the author eloquently

expresses, that "every human achievement is submerged in the general flood of things, and its issue soon grows ambiguous and untraceable," but also that everything is irrelevant and meaningless as it passes; that human lives are tragic simply because men are not content to look at life and let it go at that, but try to do something about it, and so are rewarded with failure.

M. C. Otto
University of Wisconsin

A Great Teacher

Mark Hopkins, *by J. H. Denison.* New York: Charles Scribner's Sons, 1935. viii+327 pp. $3.00.

The author, John Hopkins Denison, grandson of Mark Hopkins, was just finishing his first year at Williams College when his grandfather died. He had lived much of his life in Mark Hopkins' home and therefore writes with keen appreciation of his personality and character. No other biographer has set forth with clearer understanding the intellectual quality of this great teacher.

The biography presents in clear outline the student and the teacher. It tells admirably the story of the long struggle of Mark Hopkins and the sacrifices made by his parents to make possible his college education, the early life on his father's farm, and his experiences as a young doctor in New York.

To the graduate of Williams College much of great interest will be found in the account of college life at the end of the first quarter of the nineteenth century.

As Mr. Denison says, "It is difficult to portray the power of a great teacher," but the author of this biography has succeeded to a remarkable degree. The book is more than a biography. The chapter giving an account of the early days in New England when the Hopkins family were eking out a slender living, making their way in the world, and placing the impress of their characters upon the community in which they lived, presents a vivid picture of a New England village community of the early nineteenth century. It is a pleasing picture. The ceaseless toil of the father of the family on the old farm at Stockbridge, and the character sketches of this New England community, torn by the religious and political controversies of the period, are admirably told.

The picture the author draws of Mark Hopkins' mother enables one to understand some of the finest qualities of Mark Hopkins' mind, qualities that enabled him to bridge the gap between the old and the new theological ideas which stood in the way of progress. As his biographer states in connection with this phase of his life:

> The great work of Mark Hopkins was that he had seen in the old system the elements which were permanent and had thrown all his emphasis upon these. He had opened the minds of the young to the stupendous revelations of modern science and had taught them to adjust their thinking to them. . . . Men were to serve God from love of him; not from terror before his law.

The chapter on religious life in 1825 is particularly well done. The author's training and his experience in the ministry qualified him peculiarly to write of this period. It is sincerely to be regretted that Mr. Denison did not live to hear the full measure of praise accorded to this—his best literary work.

H. A. Garfield
President Emeritus,
Williams College

A Contribution to Methodology

Essential Traits of Mental Life, *by Truman L. Kelley.* Cambridge, Massachusetts: Harvard University Press, 1935. x+145 pp. (Harvard Studies in Education, Vol. 26) $2.75.

In spite of the promise in the title, this book is a contribution to the methodology of factor analysis rather than a study of essential mental traits. In the first three chapters, Mr. Kelley presents a new technique for extracting independent mental factors from a table of correlations, and a comparison of his

new method with Hotelling's "method of principal axes" and Thurstone's "centroid method." It is impossible to describe this new method in a brief or in a non-mathematical fashion. Suffice it to say, that by a method of "axes rotation" applied successively to two variables at a time, Kelley eliminates the correlations among the variables of a table, finally transforming the original correlational table into a table of independent factors or components. Kelley's method gives exactly the same factor pattern as that of Hotelling. It differs from Thurstone's "centroid method" in its logical foundations, but little in the factors eventually teased out of a table of intercorrelations. To aid in the solution of problems involving trait analysis, sample work sheets, computational tables, and criteria for evaluating results obtained are given.

The more psychological part of this book is concerned with an examination of the opinions of various judges (psychologists and others) as to the essential mental traits and their comparative importance in occupational and social life. Each judge was given a list of the various occupational groups in the United States, with the number of men and women engaged in each. He was asked to select those traits which he considered to be essential, and to estimate the strength of each trait and its variability in the vocational and extra-vocational life of each group. Samples of the trait lists, methods of analyzing trait ratings, and factors generally agreed upon by the judges are given in Chapter v. While the judges varied greatly in their opinions, there were several traits rather consistently reported as essential. Nearly all of the judges listed verbal ability, number or quantitative ability, physical strength, motor ability, "emotional stability" (variously defined), and "social behavior" (also variously described). Memory, general intelligence (*g*, abstract ability, and the like), sensory acuities, and a dominance-leadership-drive trait were also generally agreed to be important.

As pointed out at the beginning of this review, this book adds relatively little to present knowledge with respect to the number and importance of essential mental traits. It is primarily a handbook for workers interested in the study of mental organization through multiple-factor analysis, and as such should prove valuable.

HENRY E. GARRETT
Columbia University

Teaching Tools

HOW TO LOCATE EDUCATIONAL INFORMATION AND DATA, *by Carter Alexander.* New York: Teachers College, Columbia University, 1935. xxvi+272 pp. $3.

ALEXANDER LIBRARY EXERCISES, *by Carter Alexander.* New York: Teachers College, Columbia University, 1935. 101 pp. $1.

Librarians and educators in recent years have produced several guides to library materials and methods of using library facilities. Most of the guides are not easily adapted to teaching purposes, and the assumptions on which they are based are dubious. Mr. Alexander's guide avoids both defects.

With its accompanying set of exercises, the book is primarily a teaching tool, made specifically for students of education—not for librarians nor advanced research workers. Both of these by virtue of their professional training and experience are beyond the point where this type of guide is of much use. The arrangement is such that by beginning with the *Exercises*, a student may test his skill in locating information in existing tools, and may then increase his skill by studying the contents of the book. These two books can be used either with class groups or with individuals. The author recommends the latter method in developing an efficient class procedure.

Any reviewer of such guides can usually point to sins of commission and omission, but in this case such are irrelevant. Teachers' colleges and departments of education wishing to institute a course on locating educational information will find both publications useful, provided

they find an instructor capable of directing the work. Members of the teaching staff are seldom well enough acquainted with the tools and sources to evaluate and interpret them properly. The librarian who has learned to teach effectively is the logical instructor for such a course. What he learns of the students' difficulties in their pursuit of information in print should find expression in his administration of the library, as well as in courses of this type.

RALPH E. ELLSWORTH
Graduate Library School, University of Chicago

Scottish Examinations

THE PROGNOSTIC VALUE OF UNIVERSITY ENTRANCE EXAMINATIONS IN SCOTLAND, *Scottish Council for Research in Education*. London: University of London Press, 1936. ix + 197 pp. 5*s*. net.

Volume IX of Publications of the Scottish Council for Research in Education is an interesting study of the predictive value of two important criteria for admission to Scottish universities. This study, which was financed by the International Institute of Teachers College, Columbia University, carries on the tradition of careful and painstaking investigation for which the Scottish Council is justly famed.

Candidates are admitted to Scottish universities via university preliminary (entrance) examinations, or via secondary-school leaving certificate examinations, or via a combination of the two. In 1928, 56 per cent of the 2,844 students entering Scottish universities were admitted solely on leaving certificates, and 9 per cent partly by leaving-certificate passes and partly by preliminary-examination passes. In point of numbers, therefore, the leaving certificate is an important means of admission to Scottish universities. Both these entrance examinations are made up wholly of the traditional type of "subjective" written examinations which prevailed in the United States until recently when they began to be supplemented by various types of "objective" tests of aptitude and of subject-matter achievement.

Omitting details, the general indications of this study are in consonance with studies made of the same types of college-entrance examinations in the United States. Correlations between entrance examinations and measures of success in Scottish universities range, in individual subjects, as high as 0.70, but the average is well below 0.50. So many of the correlations are in the neighborhood of 0.30 that the investigating committee calls attention (on page 187) to the fact that the coefficient of alienation for a correlation of 0.30 is 0.95, which means that the error of prediction is approximately 95 per cent as great as the error of pure chance.

In the last sentence of the book, the Scottish Committee makes this important recommendation: "As none of the entrance examinations considered in this investigation is devised to select students who are likely to succeed in special University courses, but merely to guarantee a certain standard of general education, the feasibility of applying some further specific prognostic test or tests should be considered."

BEN D. WOOD
Columbia University

Robert Frost, Teacher and Educator

By ROBERT S. NEWDICK

An Annotated Bibliography

Robert Frost, now in his early sixties, is and long has been first and foremost a poet, a distinguished poet, doubtless a permanently great poet. Hence students, scholars, and critics for years have attached much weight to his utterances on his art.

Next after being a poet, however, this many-sided man has for decades been a

teacher and an educational philosopher, a remarkably successful teacher on all three levels of our American system, but a philosopher whose views and techniques, particularly in the field of higher education, have not been adequately publicized in general or sufficiently studied in laboratory practice.

As a recent study in this JOURNAL endeavored to make clear by implication,[1] it is not enough to think of Robert Frost's associations with institutions of higher learning as merely luxurious indulgences for them or simply pleasant episodes for him. He on his part has undertaken those associations with positive educational purposes, and the colleges and universities on their part have profited richly and demonstrably.

The following annotated bibliography, selected in the light of its title, arranged chronologically, and as complete as possible to date, is offered with sincere conviction of its value and with fervent hope for its provocativeness.

WILMORE, CARL. "Finds Famous American Poet in White Mountain Village," *Boston Post*, February 14, 1916, p. 16.

A notable long interview, in part on educational matters.

HEDGES, M. H. "Creative Teaching," *School and Society*, VII (January 26, 1918), pp. 117–18.

Article applauding the poet's association with Amherst College as a teacher.

TILLEY, M. P. "Notes from Conversations with Robert Frost," *The Inlander*, XX (February, 1918), pp. 3–8.

Essay, by a professor in the University of Michigan, of reminiscences, with many pertinent observations by the poet-professor in direct quotation.

ANTHONY, JOSEPH. "Robert Frost, Realist and Symbolist," *New York Times*, July 4, 1920, Book Review and Magazine, p. 19.

Article-interview, including an anecdote of Frost's frank criticism of a student writer.

[1]Newdick, Robert S. "Robert Frost and the American College," JOURNAL OF HIGHER EDUCATION, VII (May, 1936), pp. 237–43.

"Literature and the Colleges," *Christian Science Monitor*, October 18, 1920, p. 3.

A long quotation from Frost's letter to the Reeling and Writhing Club of Bryn Mawr College.

STEWART, BERNICE. "Robert Frost Comes to Ann Arbor," *Detroit Free Press*, October 16, 1921, Magazine Section, p. 5.

Article prompted by the arrival of the poet-in-residence whose teaching was to be by presence.

"Robert Frost: Michigan's Guest," *Michigan Alumnus*, XXVIII (October 20, 1921), pp. 43–45.

Excellent interview, touching particularly on education.

BOWEN, STIRLING. "A Poet on the Campus of the University of Michigan," *Detroit News*, Part Seven, November 27, 1921, p. 1.

Article-interview, in part, on the poet's educational theory.

"Some Observations by Robert Frost," *Michigan Alumnus*, XXVIII (December 1, 1921), p. 234.

Much quotation from a lecture, largely on education, before the Ann Arbor group of the American Association of University Women.

STEWART, BERNICE. "Reviewing Robert Frost's Year at Ann Arbor," *Detroit Free Press*, Magazine Section, June 25, 1922, pp. 3, 7.

Article-interview, focusing the evidences of the success of the Michigan experiment and quoting directly from a student editorial, a communication to the president from the department of English, a speech by President Burton, and the poet.

SMITH, KATHERINE G. "Robert Frost and the Ann Arbor Fellowship in Creative Art," *The Lyric West*, II (September, 1922), pp. 28–29.

Largely enthusiastic quotation of the preceding item.

COWLES, JASON. "An Au Revoir to Robert Frost," *Michigan Daily*, Sunday Magazine, May 20, 1923, pp. 1, 7.

Article-interview: a significant farewell after the poet's second year at Michigan.

FELD, ROSE C. "Robert Frost Relieves His Mind," *New York Times*, October 21, 1923, Book Review, pp. 2, 23.

Long interview, including much on teaching and education.

JACKSON, GARDNER. "I Will Teach Only

When I Have Something to Tell," *Boston Globe*, November 13, 1924.

Long interview, largely in direct quotation, with numerous views on education and on teaching.

"Robert Frost, Poet, May Do as He Pleases on His New Job," *Springfield Republican*, November 29, 1924.

Excellent interview, like the preceding, on the eve of the poet's departure for Ann Arbor to become Fellow in Letters.

"Tribute Is Paid to Dr. Burton," *Christian Science Monitor*, May 29, 1925, p. 5.

Long quotation, perhaps entire, of Frost's observations at the memorial service for President Burton, with much on education.

"Robert Frost Speaks in Memory of Dr. Burton," *Michigan Alumnus*, XXXI (June 6, 1925), pp. 703–704.

Extensive quotation, but not as full as the preceding.

SERGEANT, ELIZABETH SHEPLEY. "Robert Frost: A Good Greek Out of New England," *New Republic*, XLIV (September 30, 1925), pp. 144–48.

Reprinted as Chapter XIV in Miss Sergeant's *Fire under the Andes* (New York: Alfred A. Knopf, 1927, pp. 285–303). Notable for a first-hand impression of one of Mr Frost's hours with his class.

SCHERER, RUTH VON BACK. "A Welcome Back to Robert Frost," *Michigan Chimes*, VII (October 25, 1925), pp. 1, 3, 7.

Subtitled "Some Impressions and an Appreciation," and analyzing Frost's contribution in discrediting literary claques.

ABBOT, WALDO. "Robert Frost: Professor of English," *Michigan Alumnus*, XXXII (December 12, 1925), pp. 208–209.

Article-interview, largely in direct quotation, concerning principles and methods of teaching college undergraduates. Reprinted as "Robert Frost as Teacher," *McNaught's Monthly*, V (February, 1926), p. 46.

"Robert Frost Interprets His Teaching Method," *Christian Science Monitor*, December 24, 1925, p. 11.

Excellent long interview, largely in direct quotation.

MACK, W. HARRY. "Robert Frost, Farmer and Poet," *The Tanager*, I (May, 1926), pp. 17–20.

Essay of reminiscences of Frost at Michigan.

"Robert Frost Returns to Amherst," *Amherst Graduates' Quarterly*, XV (August, 1926), pp. 271–73.

Article embodying the Amherst point of view, giving Amherst reminiscences, and quoting from Abbot's interview.

MUNSON, GORHAM B. *Robert Frost*. New York: George H. Doran Company, 1927, *passim*.

In this pioneer book-length biographical and critical study of the poet-teacher, see particularly pages 39–51 for material on his teaching in Pinkerton Academy, Derry, New Hampshire, pages 51–56 on his teaching in the New Hampshire State Normal School, Plymouth, and pages 74–75 on his association with Amherst, Michigan, and other colleges and universities.

MELCHER, DANIEL. "'English Classes Should Not Analyze Books,' Says Poet," *The Mountaineer*, January 13, 1928, pp. 1, 3.

Interview in the Montclair, New Jersey, high-school paper.

COX, SIDNEY, *Robert Frost*. New York: Henry Holt and Company, 1929, *passim*.

See particularly pages 23–26, for a former fellow teacher's comments and impressions.

FAIR, JESSIE FRANCES. "Robert Frost Visits the Demonstration Class," *English Journal*, XX (February, 1931), pp. 124–28.

Records the poet's hour with a class in conversation in the Colonel White Junior High School, Dayton, Ohio, and his reminiscences and observations.

"Frost Lectures at Bread Loaf," *New York Times*, July 12, 1931, Section II, p. 18.

News item, with brief quotation from Frost's address at the school of English, Middlebury College, of which he was co-founder in 1920.

NEWDICK, ROBERT S. "Robert Frost and the American College," JOURNAL OF HIGHER EDUCATION, VII (May, 1936), pp. 237–43.

A sketch of his background and experience in teaching and a statement of his principles and practices as a teacher and educator.

In the Lay Magazines

"Education on a Mountain," by Louis Adamic, *Harper's*, April, 1936.

"Education on a Mountain," the story of Black Mountain College, is the result of a chance visit of the author to the school in North Carolina. He planned to stay an hour; he stayed two and a half months.

The school was founded in 1933 as an aftermath of the academic rebellion at Rollins College. The rector, John Rice, was the center figure in that affair. Six instructors and fifteen students decided to found a new college. They rented a summer-hotel-like building owned by the Southern Y.M.C.A., pooled their financial resources and their personal libraries, and started in. This year there are twenty instructors and forty-eight students. The ultimate maximum enrollment will be one hundred twenty-five students and a faculty of thirty, for such education as Black Mountain College advocates is possible only in a very small school.

The founders of the college opposed many things in contemporary education, but they were unanimous on one objection that college and university trustees, presidents, and deans, most of whom were not teachers or scholars but executives and disciplinarians, had the power to interfere with the teachers' function.

And so the institution has no trustees, no president, no deans. The government is a co-operative self-government.

At Black Mountain College, education is experience that involves in action the whole person.

There an increasingly successful effort is made to perfect a procedure of education predicated upon the concept that both the world and the individual who is to be prepared for it are changing, moving, dynamic—a concept which challenges, on the one hand, the unconscious notion of the great old institutions that both the world and the individual are static, and, on the other, the more conscious idea of the so-called progressive schools that the world is static and the individual is not.

There are no required courses. Before graduation, however, the student must undergo two tests of his knowledge: the first at the end of two years, the second about two years later, both depending upon his willingness and ability to work. The work of the junior division is largely exploratory; the senior division is a period of specialization in a field or in related fields of knowledge.

One of the requirements for entrance in this division is a carefully made plan of work to cover about two years. When the student thinks he has completed this work he petitions for the right to graduate, accompanying his request with a statement of what he professes to know in his chosen field. If this statement is satisfactory, the faculty invites some competent person not connected with the college to examine him in what he claims to know.

On the whole, the effort of the school is to produce individuals rather than individualists, but the individual must also be aware of his relation to others. Group influence is one of the most important elements of the school's education.

For the time, Black Mountain College is significant only as a beginning, but what if some of its teaching staff and some of its students could serve as nuclei for other similar colleges. The author says: I am confident that twenty of these family-village-like colleges scattered over the country . . . would make a good start toward revolutionizing American education, while a thousand of them would begin to affect deeply—and desirably—the whole life of the American people.

"Families of Minds," by William Lowe Bryan, *American Scholar*, Spring, 1936.

There is a story that Shelley once proposed a toast "To the confusion of Sir Isaac Newton." Why? "Because with his mathematics he has driven poetry out of the solar system." "Those two," writes Mr. Bryan, "could never be of the same family of minds." There are families of minds which differ profoundly in temperament and point of view: scholars, artists; philosophers, mystics; and the like.

The school is the domain of the scholar. With that fact Mr. Bryan has no quarrel; but however great may be the value of the method of the scholar, as, for example, in teaching a poem, something essential remains to be done by the method and in the spirit of the man who wrote the poem.

I would not, if I could, deny to the scholar of any sort his right to study and teach any art in any way he chooses but in my view if art is to come quite rightly into the school it must also come in the mode and spirit of the artist family of minds. . . . The best thing to do with a song is to sing it. The best thing to do with a lyric is to read it. The best thing to do with a play is to play it.

More and more, even in the elementary grades such work is being done. "In high school and college the possibilities are unlimited." The author urges a larger number of options for students in all grades so that many of them may choose to study works of literature in order to read them aloud adequately.

We are in the midst of a renaissance of the drama. In school, in church, indoors, out of doors, our folk are finding that they can find life and express life in this supreme form of art. The scholar and the philosopher will go on with their inevitable and necessary tasks, but more and more the artist will lead his share of the people into the kind of world which the artist creates.

"A College for One," by Philip Curtiss, *Harper's*, May, 1936.

"A College for One" consists in a plan of reading at home followed by the author's two daughters; here is the basic schedule of "Curtiss College."

9:00 to 9:30. Read serious, non-fiction book.
9:30 to 9:40. Reverie period. Put down your book, lean back in your chair, and think of anything you please.
9:40 to 10:10. Read same book.
10:10 to 10:20. Reverie period.
10:20 to 10:50. Read French.
10:50 to 11:00. Reverie period.
11:00 to 11:10. Recess. Go out of the room and do anything you like except read.
11:10 to 11:40. Continue reading French.
11:40 to 11:50. Reverie period.
11:50 to 12:20. Read literature—fiction.
12:20 to 12:30. Reverie period.
12:30 to 1:00. Continue reading fiction.

The reading has ranged from *Huckleberry Finn* to Boissier's *Cicero and his Friends*. The volumes have sometimes been chosen by chance. The author had only one general rule—that the books should be chosen for their authors rather than for their subject-matter.

The whole idea, in other words, is that the students in my course should spend four hours a day in the informal company of men and women whom I regard as the possessors of fine minds.

Obviously, the plan is a special one designed to fit a particular situation—there is no provision for science or mathematics, for "social contacts"; there is no provision for training to earn a living. But, in regard to the last-named, "Where," asks the author, "*is* there such a course?"

Knowledge of the library's financial and other problems is essential to educators . . .

The Library Quarterly

PRESENTS

in the July issue:

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